

APPLICATIONS FOR ADMISSION AND FOR TRANSFER

The Constitution provides that the Board of Direction shall elect or reject all applicants for *Admission* or for *Transfer*, and, in order to determine justly the eligibility of each candidate, the Board must depend largely upon the Membership for information.

This list is issued to members in every grade for the purpose of securing all such available information, and every member is urged to scan carefully each monthly list of candidates and to furnish the Board with data in regard to any applicant which may aid in determining his eligibility. It is the *Duty* of all *Members* to the *Profession* to assist the Board in this manner.

It is especially urged, in communications concerning applicants, that errors in the record be pointed out and a *Definite Recommendation as to the Proper Grading in Each Case* be given, inasmuch as the grading must be based upon the opinions of those who know the applicant personally, as well as upon the nature and extent of his professional experience. If facts exist derogatory to the personal character or to the professional reputation of an applicant, they should be promptly communicated to the Board. *Communications Relating to Applicants are considered by the Board as Strictly Confidential.*

The Board of Direction will not consider the applications herein contained from residents of North America until the expiration of thirty (30) days, and from Non-Residents of North America until the expiration of ninety (90) days from April 1, 1926.

MINIMUM REQUIREMENTS FOR ADMISSION

Grade	General Requirement	Age	Length of Active Practice	Responsible charge of work
Member	Qualified to design as well as to direct work	30 years	10 years*	5 years
Associate Member	Qualified to direct work	25 years	6 years*	1 year
Junior	Qualified for sub-professional work	18 years†	2 years*	
Affiliate	Qualified by scientific acquirements or practical experience to co-operate with engineers			
Fellow	Contributor to the permanent funds of the Society			

* Graduation from a school of engineering of recognized reputation is equivalent to 2 years' active practice.

† Membership ceases at age of 32 unless transferred to higher grade.

LIST OF APPLICANTS.

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The fact that applicants give the names of certain members as references does not necessarily mean that such members endorse.

The number in the center above each record indicates the serial number of the applicant for the current year, and that at the left the district in which he resides.

The abbreviations in *italics* represent, respectively, *TT*, Total Time; *SP*, Sub-Professional Work; *P*, Professional Work; *RC*, Responsible Charge; *D*, Design. The figures showing the amount of time spent in Responsible Charge and on Design are the estimate of the Applicant. The allowance of two years for graduation and of one-third of a year for each academic year successfully completed in an engineering college without graduation is included in Total Time and Sub-Professional Work.

FOR ADMISSION

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(15) ADAMS, MADISON HILLIARD, 1222 Athletic Club Bldg., Dallas, Tex. (Age 24. Born Forney, Tex.) 1923 B. S. in Civ. Eng., Tex. Agri. and Mech. Coll. *TT* 2; *SP* 2. June to Oct. 1923 Scout, Sun Oil Co., Beaumont, Tex., gathering information as to depth of wells and geological formations. *TT* 0.3; *SP* 0.3. Oct. 1923 to Feb. 1924 Draftsman, Coastal Blue Print & Map Co., Beaumont, making maps, running instrument, etc. *TT* 0.4; *SP* 0.4. Feb. to Oct. 1924 Draftsman, Dallas (Tex.) Power & Light Co., drawing plans and running instrument for construction of electrical substations. *TT* 0.7; *SP* 0.7. Oct. 1924 to date with Concrete Eng. Co., Dallas, until July 1925 as Draftsman drawing plans for reinforced concrete buildings, and since then Asst. Mgr. supervising drafting room, making designs and estimating steel for reinforced concrete construction work. *TT* 0.7; *P* 0.7; *D* 0.2. *TT* 4.8; *SP* 4.1; *P* 0.7; *D* 0.2. Refers to B. Bird, F. R. Lewis, J. L. Lochridge, T. A. Munson, J. L. O'Hearn, J. J. Richey.

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(13) ALCORN, MANFORD CRAIG, 2276 Twenty-second Ave., San Francisco, Cal. (Age 26. Born Poseyville, Ind.) 1923 B. S. C. E., Purdue Univ. *TT* 2; *SP* 2. June to Sept. 1922 Instrumentman with Harry C. Morrison, Princeton, Ind., on county highway construction. June 1923 to May 1924 Asst. Engr. for R. E. Tilden, Cons. Engr., Winnemucca, Nev.; designed gravity section and timber irrigation dams, timber truss highway bridge, including drafting; had charge of construction of drainage canal. *TT* 0.9; *SP* 0.3; *P* 0.6; *RC* 0.4; *D* 0.2. May 1924 to Dec. 1925 Asst. Res. Engr., State Highway Dept. of Nevada, on construction; 3 months Instrumentman on location. *TT* 1.6; *SP* 1.6. *TT* 4.5; *SP* 3.9; *P* 0.6; *RC* 0.4; *D* 0.2. Refers to C. C. Cottrell, W. K. Hatt, P. L. Hazard, H. F. Holley, W. A. Knapp, R. B. Wiley.

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(10) ALLMOND, DAVID ROBINSON, Jr., Care, Carr & McFadden, Inc., West Palm Beach, Fla. (Age 26. Born Wilmington, Del.) 1922 B. S. in C. E., Univ. of Del. *TT* 2; *SP* 2. June to Sept. 1920 Instrumentman, Pennsylvania R. R. June 1922 to May 1923 Structural Detailer, American Bridge Co., Pencoyd Plant, detailing hotel, office, theatre, etc., columns, beams and girders. *TT* 0.9; *P* 0.9. May 1923 to Aug. 1925 Jun. Highway Engr., State of Illinois, Asst. to Res. Engr. *TT* 2.3; *SP* 0.3; *P* 2; *RC* 0.8. Aug. 1925 to date Asst. to Vice-Pres., Carr & McFadden, Inc., West Palm Beach, Fla., Asst. to Office Engr. *TT* 0.6; *SP* 0.3; *P* 0.3; *RC* 0.3. *TT* 5.8; *SP* 2.6; *P* 3.2; *RC* 1.1. Refers to G. W. Carr, Jr., L. D. Draper, J. Flirth, W. M. Francis, G. McFadden.

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(11) ANNIN, ROSWELL HOWARD, 911 No. Electric Ave., Alhambra, Cal. (Age 37. Born Los Angeles, Cal.) B. S., Occidental Coll., Los Angeles, Cal. 1914 M. S. Mass. Inst. Tech. *TT* 2; *SP* 2. July 1914 to Sept. 1917 with Aberthaw Constr. Co., Boston, Mass., as Field Engr. on large industrial building construction, Asst. Supt. of steam tunnels and conduit work, planning field operations on industrial development at Buffalo, Designer of buildings, mills, etc., and making efficiency studies at a large foundry. *TT* 3.2; *SP* 2;

P 1.2: D 1.2. Sept. 1917 to May 1919 Lieut., Constr. Sec., Supply Div., Ordnance Dept., U. S. Army, in charge of structural design and plans for buildings at large storage depots and arsenals in United States. TT 1.7: P 1.7: RC 1.7: D 1.7. June 1919 to March 1922 Chf. Designing Engr., Aberthaw Constr. Co., in charge of design of industrial buildings, power plants, mills, etc. TT 2.8: P 2.8: RC 2.8: D 2.8. March 1922 to Aug. 1923 in private practice, as Constr. Engr. for Hood Rubber Co., designing and supervising construction on structural design for M. C. Tuttle Co., Boston, and designing various structures for individuals and firms. TT 1.3: P 1.3: RC 1.3: D 1.3. Aug. 1923 to date Constr. Engr., Meyer & Holler, Inc., Los Angeles, Cal., in full charge of field work consisting of construction of churches, height-limit office buildings, industrial buildings, stores, etc. (cost varying to \$2 225 000). TT 2.5: P 2.5: RC 2.5. TT 13.5: SP 4: P 9.5: RC 8.3: D 7. Refers to H. A. Gray, G. C. Munoz, B. H. Smith, C. M. Spofford, W. C. Voss.

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(3) BAILY, PAUL JULES GHISLAIN, 169 Stanley St., Montreal, Que., Canada. (Age 33. Born Namur, Belgium.) 1912 L. Sc. Civ. Engr., Univ. of Ghent, Belgium. TT 2: SP 2. 1912 to 1913 Engr., Belgian Govt. R. Rs., on construction and design. TT 1: SP 1: D 1. 1913 to 1914 Engr. of Constr., Fabrique Nationale d'Armes de Guerre, Herstal, Liege, Belgium. TT 1: P 1: RC 1: D 1. 1914 with Belgian Army. 1915 to 1916 Engr. of Constr. and Mech. Engr., Asst. Works Mgr., Aerators, Ltd., London, England. TT 1: P 1: RC 1: D 1. 1916 to 1920 Asst. Chf. Engr. and Naval Archt., Canadian Vickers, Ltd., Montreal, Canada. TT 4: P 4: RC 4: D 4. 1920 to 1921 Designing and Constr. Engr., Belgo Canadian Pulp & Paper Co., Shawinigan Falls, Que., Canada. TT 1: P 1: RC 1: D 1. 1921 to 1922 Asst. City Engr., Verdun, Que., Canada. TT 1: P 1: RC 1: D 1. 1922 to 1923 Designing Engr., Arthur Surveyor & Co., Cons. Engrs., Montreal, Que., Canada. TT 0.5: P 0.5: RC 0.5: D 0.5. 1923 to date Engr. of Bldgs., City of Montreal. TT 3: P 3: RC 3: D 3. TT 14.5: SP 3: P 11.5: RC 11.5: D 12.5. Refers to S. J. Fortin, R. D. French, P. A. N. Seurot, F. P. Shearwood, E. Smulski, A. Surveyer, L. R. Thomson.

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(1) BARLOW, ERNEST EDWARD, Manizales, Colombia. (Age 45. Born Peterborough, England.) 1903 and 1904 student, Civ. Eng. course, Kings Coll., London, England. 1898 to 1901 Articled Pupil to City Engr., Peterborough, England. TT 3: SP 3. 1901 to 1903 Civ. Engr. Asst. to City Engr., Hull, England, on plans and specifications, bridges, electric power-station, tramways, public baths, etc. TT 2: SP 1: P 1: D 1. 1903 to 1910 Eng. Asst. to City Engr., Westminster, England, on construction of highways and sewers, refuse destructor, subways, etc. TT 7: P 7: D 2. 1910 to 1920 Borough Engr., Wisbech Corporation, England, on paving, sewer works, new sewage scheme, public baths, town planning schemes, alterations to town hall, new town bridge. TT 10: P 10: RC 10. 1920 to 1922 Civ. Engr. at Peterborough and Wisbech, on streets and sewers, jam factory, dock, commercial and domestic buildings, river and land surveys, etc. TT 1.5: P 1.5: RC 1.5. 1922 to 1923 Eng. Asst., Officer in charge of works, H. M. Dockyard, Simonstown, South Africa, on gun mounting, shops and stores, water scheme, oil tanks, 12 000-ton capacity, drainage scheme, etc. TT 1.3: P 1.3. 1923 to March 1926 Structural Engr., Cuba Cane Sugar Corporation, Havana, on design and construction of sugar mills. March 1926 to date with Ulen & Co., Manizales, Colombia. TT 2.6: P 2.6: D 1.3. TT 27.4: SP 4: P 23.4: RC 11.5: D 4.3. Refers to W. G. Ames, C. C. Fitz Gerald, W. P. Rothrock, M. A. Rue, G. P. Seeley, Jr., M. A. Smith, A. A. Van Petten, E. R. Williams.

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(2) BARNES, ALBERT EDWARD, Putnam Ave., Greenville, R. I. (Age 23. Born Greenville, R. I.) 1925 Sc. B. in Eng., Brown Univ. TT 2: SP 2. June to Oct. 1924 Testing Engr. for Bohl & Day, Engrs., in charge of testing highway materials for State Board of Roads, etc. June to Sept. 1925 Surveyor for same Engrs., in charge of party on traverse and grade work for Brown Stadium. TT 0.2: P 0.2: RC 0.2. Nov.-Dec. 1925 Surveyor with C. F. Chase, Engr., giving line and elevations for column footings for proposed Rogers Williams Apartment, Providence. TT 0.1: P 0.1. TT 2.4: SP 2: P 0.4: RC 0.2. Refers to J. R. Freeman, J. E. Hill, O. P. Sarle, S. Willmot, F. E. Winsor.

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(14) BARNES, HUGH DONALD, P. O. Box 231, Chanute, Kans. (Age 29. Born Blue Mound, Kans.) 1920 B. S., Kans. State Agri. Coll. TT 2. March to Sept. 1917 Levelman, Idaho Irrigation Co. TT 0.5. June to Sept. 1919 Instrumentman and Draftsman, Ruckle Eng. Co., field and office work in municipal engineering. Feb. to March 1920 Asst. County Engr., Riley County, Kans., field and office work in highway engineering. TT 0.1. March to Dec. 1920 Res. Engr., E. T. Archer & Co., Kansas City, Mo., in charge of city paving and plans for same. TT 0.7: RC 0.7: D 0.7. Dec. 1920 to July 1925 with Butler County, Kans., until June 1922 as Asst. County Engr. on design of highway bridges and pavements.

then County Engr. in charge of all highway work, design and construction, pavements and bridges. *TT 4.6: RC 3.1: D 4.6.* July 1925 to date Div. Engr., Kansas State Highway Comm., in charge of all State and Federal highway construction, in Div. No. 4. *TT 0.6: RC 0.6. TT 6.5: RC 4.4: D 5.3.* Refers to W. V. Buck, L. E. Conrad, O. J. Eldmann, F. F. Frazier, I. Rogers, C. F. Zeigler.

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(15) **BASKETT, JOHN LEWIS**, 2917 Douglas St., Dallas, Tex. (Age 23. Born Hillsboro, Tex.) 1922 B. S. in Civ. Eng., Agri. and Mech. Coll. of Tex. *TT 2: SP 2.* June to Sept. 1922 drafting and checking, Truscon Steel Co., Dallas, Tex. *TT 0.2: SP 0.2.* Sept. 1922 to April 1923 structural steel detailing, Southern Wire & Iron Co., Dallas. *TT 0.6: SP 0.6.* April to Sept. 1923 bridge detailing and shop ordering, Austin Bridge Co., Dallas. *TT 0.4: SP 0.4.* Sept. 1923 to May 1924 reinforced concrete design and detailing, Joor Eng. Co., Dallas. *TT 0.7: P 0.7: RC 0.3: D 0.7.* May 1924 to date estimating, detailing and designing reinforced concrete structures, Truscon Steel Co., Dallas. *TT 1.8: P 1.8: RC 1.8: D 1.8. TT 5.7: SP 3.2: P 2.5: RC 2.2: D 2.5.* Refers to J. L. Lochridge, J. T. L. McNew, J. C. Nagle, J. L. O'Hearn, J. J. Richey.

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(4) **BAXTER, SAMUEL SERSON**, 1420 E. Columbia Ave., Philadelphia, Pa. (Age 21. Born Philadelphia, Pa.) 1925 Diploma in Mun. Eng., Drexel Inst. Evening School, Philadelphia, Pa. Feb. 1923 to date with Bureau of Surveys, Dept. of Public Works, Philadelphia, as Chainman, Rodman, and (after July 1924) Transitman and Chf. of Party on property surveys, lines and grades for sewers, paving, grading, etc., drafting and computing for surveys, estimates and plans for municipal improvements. *TT 3: SP 3.* Refers to T. Buckley, J. H. Gillingham, A. Z. Hoffman, W. C. Reeder, A. G. Singer.

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(1) **BAYLOR, ROBERT EMMET**, Chuquicamata, Chile. (Age 35. Born Montell, Tex.) 1913 B. S., Agri. and Mech. Coll. of Tex. *TT 2: SP 2.* July 1913 to Aug. 1917 Rodman, Leveler and Instrumentman, Panama Canal and Panama R. R. *TT 4: SP 4.* Aug. 1917 to Jan. 1922 with Braden Copper Co., Rancagua, Chile, as follows: Aug.-Dec. 1917 and July 1920 to July 1921 Instrumentman; Jan. 1918-June 1920 Asst. Div. Engr. on construction of dam for impounding 400 000 000 tons of tallings at Barahona, Chile, in charge of engineering, field and office; after July 1921 Office Engr. on construction of smelter at Caletones. *TT 4.4: SP 1.9: P 2.5: RC 2.5.* May 1923 to date with Chile Exploration Co., Chuquicamata, Chile, until Jan. 1925 as Instrumentman on railroad location and construction, then Acting Field Engr. in charge of 15 field parties on construction of plant extension (\$17 000 000) and since June 1925 Estimating Engr. on same extension. *TT 2.6: SP 1.7: P 0.9: RC 0.9. TT 11: SP 7.6: P 3.4: RC 3.4.* Refers to E. H. Baldwin, E. W. Baldwin, D. G. Coombs, H. M. Dougherty, W. E. Rudolph, C. F. Wood.

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(14) **BEAL, CHARLES HOCTOR**, 1113 South 33d St., Omaha, Nebr. (Age 26. Born Omaha, Nebr.) June to Sept. 1915 Chainman and June to Sept. 1917 Rodman, City of Omaha, Nebr. *TT 0.3: SP 0.3.* Sept. 1917 to July 1919 Rodman, Missouri Pacific Ry. *TT 1.8: SP 1.8.* July 1919 to date with City of Omaha, 4 years as Instrumentman, and 2½ years in charge of party, on surveys and municipal construction. *TT 6.5: SP 4: P 2.6: RC 2.5. TT 8.6: SP 6.1: P 2.5: RC 2.5.* Refers to A. G. Beard, G. C. Breckinridge, J. A. Bruce, G. P. Dorsey, R. E. Edgecomb, W. L. Fulton, H. V. Knouse, R. N. Towl.

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(15) **BILLINGS, CHARLES NEWPORT**, 338 Sterling Ave., Lafayette, La. (Age 27. Born Jetmore, Kans.) 1923 B. S., Univ. of Wash. *TT 2: SP 2.* March to June 1919 Rodman, Oregon State Highway. *TT 0.3: SP 0.3.* June 1919 to date Rodman, Draftsman, and Instrumentman, Southern Pacific R. R. *TT 3: SP 3. TT 5.3: SP 5.3.* Refers to W. F. Allison, I. L. Collier, G. Haselton, C. C. May, C. C. More, J. C. Rathbun, H. K. Rubey.

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(1) **BOND, HERBERT VICTOR**, 11 Crown St., Auckland, New Zealand. (Age 31. Born London, England.) Nov. 1917-Jan. 1921 Asst. Borough Engr., Napier (New Zealand) Borough Council; assisted on design and execution of sewerage, road, water and building schemes and maintenance work, etc. *TT 3.2: SP 3.2.* Feb. 1921 to Aug. 1923 Asst. Civ. Engr. and Architectural Designer, New Zealand Dairy Co., Ltd., Hamilton, New Zealand, designed, directed and executed large building program of industrial settlements and factories with road, water and sewerage schemes, surveys and river landings. *TT 2.6: P 2.6: RC 2.6: D 2.6.* Aug. 1923 to June 1924 Asst. Borough Engr., Onehunga (New Zealand) Borough Council, designed and supervised part of road scheme and sewerage reticulation, maintenance work. *TT 0.8: P 0.8: RC 0.8: D 0.8.* June 1924 to date Acting Engr., Mt. Roskill Road Board, Auckland, New Zealand, supervision of sewerage construction.

designed concrete roads and municipal buildings, designed and executed road contracts and storm-water sewer contracts. *TT 1.7: P 1.7: RC 1.7: D 1.7. TT 8.3: SP 3.2: P 5.1: RC 5.1: D 5.1.* (Applies in accordance with Sec. I, Art. I, of the By-Laws.)

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(1) **BRALOFF, HERMAN MATTHEW**, 850 Longwood Ave., Bronx, N. Y. (Age 28. Born London, England.) 1919 B. Sc. in C. E., N. Y. Univ. *TT 2: SP 2.* June 1919 to Jan. 1920 Jun. Engr., Transit Constr. Comm., New York City, on 14th St. Tunnel, in charge of concrete construction. *TT 0.5: SP 0.2: P 0.2: RC 0.2.* Jan. 1920 to March 1926 Rosenthal Eng. Contr. Co., Inc., Brooklyn, N. Y., as follows: Jan. 1920 to Jan. 1921 Asst. Supt. on Eagle Pencil Co. Bldg. (8 stories reinforced concrete), in charge of timekeeping, material and laying out work and in general charge of all engineering; Jan. 1921 to Jan. 1922 Engr. in charge of design and construction on Langar Printing Co. Bldg. (3 stories, reinforced concrete, flat slab design), Jamaica, N. Y.; Jan. 1922 to Jan. 1923 Asst. Chf. Engr. in charge of construction and design, Levonia Ave. Yard, Brooklyn. (600 ft. long and appurtenances) and 180th St. Yard, New York City (660 ft. long), in charge of design, both I. R. T. structures. Jan. 1923 to Jan. 1924 in charge of design and construction, as Asst. to Chf. Engr., on Gen. Administration Bldg., etc., and six other structures, I. R. T. shop, 147th St. and 7th Ave. for Transit Comm., difficult foundation work, approx. \$500 000; Jan. 1924 to Jan. 1925 in charge of construction (under Chf. Engr.) on P. S. No. 74, Bronx (approx. \$1 250 000, rock excavation, steel structure) and P. S. No. 173, including section of subway construction underneath the school (contract \$1 000 000); Jan. to July 1925 in charge of design and construction (under Chf. Engr.) of New York State Arsenal, 64th St. and 2d Ave., Brooklyn (\$750 000, reinforced concrete) for New York State Dept. of Architecture; Asst. to Chf. Engr. on subway sections along Central Park West, 101st to 111th Sts., New York City, (\$5 246 000); designed decking, street carrying beams and girders and supporting system for streets and street railway over the section, made investigation and reports on underpinning of buildings. March 1926 to date Asst. to Chf. Engr., Corson Constr. Corporation, New York City, acting as Treasurer, subway construction and building operation. (contract \$5 250 000). *TT 6.2: SP 0.5: P 5.7: RC 4.1: D 1.5. TT 8.7: SP 2.7: P 6: RC 4.1: D 1.5.* Refers to J. Meltzer, M. Miller, R. Ridgway, J. A. Ruddy, L. White.

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(7) **BRAUN, HARRY SHEA**, 1222 Atkinson Ave., Detroit, Mich. (Age 31. Born Pittsburgh, Pa.) Registered Engr., State of Mich. 1916 B. S. in C. E., Carnegie Inst. Tech. *TT 2: SP 2.* July 1916 to March 1917 Rodman, Grand Trunk R. R., laying out sidings, correcting station maps, etc. *TT 0.7: SP 0.7.* April 1917 to April 1918 Draftsman, Detroit Terminal R. R. *TT 1: SP 1.* May 1918 to July 1919 Corporal, Co. F, 106th Engrs., 31st Div., U. S. Army, sketching, instrument work and in charge of party staking out hospital barracks, narrow-gauge railroad and highways in camps near Brest, France. *TT 1.2: SP 1.2.* July 1919 to April 1921 Draftsman, Truscon Steel Co., at Detroit, detailing reinforcing steel, making structural designs for architectural plans of buildings, and checking detail drawings. *TT 1.8: SP 1.3: P 0.5.* April 1921 to Aug. 1922 Draftsman, Gabriel Steel Co., on similar work. *TT 1.2: SP 0.8: P 0.4.* Aug. 1922 to date Draftsman and Estimator, Truscon Steel Co., taking off quantities of reinforcing materials from architect's drawings; designs of structural frame work; since Jan. 1925 in charge of Estimating Dept. *TT 2.4: SP 0.3: P 2.1: RC 1.1. TT 10.3: SP 7.3: P 3: RC 1.1.* Refers to A. D. Estes, M. Goldenberg, C. E. Hart, W. D. McFarlane, W. S. Wolfe.

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(14) **BROWN, CHARLES ELLSWORTH**, 402 Interstate Bldg., Kansas City, Mo. (Age 29. Born Kansas City, Mo.) 1921 S. B., Mass. Inst. Tech. *TT 2: SP 2.* May to Sept. 1917 Chainman and June to Sept. 1920 and July to Nov. 1921 Draftsman, Kansas City, Mexico & Orient Ry. Co. *TT 0.6: SP 0.6.* Nov. 1921 to Feb. 1922 Draftsman and June 1922 to Jan. 1923 Draftsman and Topographer, Kansas City Southern Ry. *TT 0.9: SP 0.9.* Jan. to June 1923 with R. L. Falkenberg & Co. Contrs., miscellaneous office and field work. *TT 0.4: SP 0.4.* Feb. to Jan. 1922 Draftsman and June 1923 to date Draftsman and Engr., Burns & McDonnell Eng. Co., on municipal improvements; has had responsible charge, as Prin. or Asst., on three appraisals of public utilities properties, two electric light and power projects, a sewerage system, a sewage-disposal plant, a survey for hydro-electric development, and six water-works improvement projects, including five pumping stations, three reservoirs and four filtration plants. *TT 3.1: SP 0.7: P 2.4: RC 2: D 1.5. TT 7: SP 4.6: P 2.4: RC 2: D 1.5.* Refers to M. P. Hatcher, R. E. McDonnell, C. K. Mathews, L. B. Reynolds, C. A. Smith, C. M. Spofford.

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(2) **BURG, JOSEPH WILLIAM**, Care, Vaughan Engrs., 185 Devonshire St., Boston, Mass. (Age 22. Born Boston, Mass.) Graduate in Arch. Constr., Wentworth Inst., Boston, Mass. Oct. 1923 to Feb. 1924 Rodman, Recorder and Topographical Draftsman with Vaughan Engrs.,

Boston, preliminary surveys for hydro-electric developments. TT 0.4: SP 0.4. March to Oct. 1924 Architectural Draftsman, Vermont Marble Co., Proctor, Vt., shop drawings and lists for marble construction. TT 0.7: SP 0.7. Nov. 1924 to date with Vaughan Engrs. as follows: Nov. 1924-Jan. 1925 Asst. to Engr. in Chg., Recorder on final surveys for four hydro-electric developments, material search for concrete aggregates and testpits, and Paymaster; Feb.-May 1925 Designer, Draftsman and Estimator on relocation of 5 miles of New Hampshire State highway in connection with hydro-electric development; June to Nov. 1925 Asst. to Res. Engr. on field matters prior to construction; since Nov. 1925 Computer, Draftsman and Detailer on power studies, construction drawings for hydro-development. TT 1.4: SP 0.8: P 0.6: D 0.3. TT 2.5: SP 1.9: P 0.6: D 0.3. Refers to E. D. Kingman, J. H. Tebbetts, E. A. Varney, J. F. Vaughan, W. C. Voss.

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(9) COLBURN, NORMAN ERNEST, Care, American Bridge Co., Gary, Ind. (Age 39. Born Minneapolis, Minn.) May 1905 to Jan. 1907 Blueprinter, Tracer and Detailer, and May 1907 to Oct. 1908 Detailer and Checker, Minneapolis (Minn.) Steel & Machinery Co. TT 3.1. Jan. to May 1907 Detailer, American Bridge Co., St. Louis, Mo. TT 0.3. Oct. 1908 to Aug. 1909 detail and design, Steptoe Valley Smelting & Mining Co., McGill, Nev. TT 0.8: D 0.5. Aug. to Dec. 1909 Checker, Milwaukee (Wis.) Bridge Co. TT 0.3. Dec. 1909 to date with American Bridge Co., until Jan. 1911 as Checker and Detailer at Minneapolis, and since then Checker and Squad Foreman at Gary, Ind.; past 3½ years taught Designing Class in Company's night school. TT 15.3: RC 12. TT 19.9: RC 12: D 0.5. Refers to F. W. Dencer, J. H. Heald, H. L. Maurer, A. F. Reichmann, C. E. Webb.

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(11) COLLINS, WALTER HOMER, 864 West Fortieth Pl., Los Angeles, Cal. (Age 31. Born Des Moines, Iowa.) Student, Des Moines (Iowa) Coll. (1914 to 1915) and Carnegie Inst. of Technology, Pittsburgh, Pa. (1916 to 1917). TT 0.7: SP 0.7. March-Dec. 1918 Draftsman on engineering work, Headquarters Co., U. S. Army, Portland, Ore. TT 0.8: SP 0.8. April to Oct. 1919 Topographical Draftsman, Bureau of Public Roads, Portland, plotting field notes, figuring grades, balance diagrams, estimates and computations. TT 0.5: SP 0.5. Dec. 1919 to Nov. 1924 with City Engr.'s Office, Los Angeles, until Nov. 1923 with San. Sewer Div. as Draftsman on sewer plans and computations (Dec. 1919 to Oct. 1921) and Engr. on sanitary sewer design (Oct. 1921 to Nov. 1923); after Nov. 1923 Engr., North Outfall Sewer Div., drawing up specifications for construction and materials, progress estimates for payment, etc. TT 4.9: SP 1.8: P 3.1: RC 0.9: D 2.2. Nov. 1924 to date Engr., Pacific Clay Products Co., Los Angeles, general charge of all engineering, including tests, design, research, estimates, etc. TT 1.3: P 1.3: RC 1.3. TT 8.2: SP 3.8: P 4.4: RC 2.2: D 2.2. Refers to W. F. Foster, W. T. Knowlton, R. Linton, H. A. Van Norman, A. K. Warren.

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(13) CONNELLY, JOHN LEO, 5208 Trask St., Oakland, Cal. (Age 28. Born Lonaconing, Md.) 1917 B. S. in C. E., St. Mary's Coll., Oakland, Cal. TT 2: SP 2. June 1917 to Aug. 1918 Eng. Asst., acting as Rodman, Chainman and Timekeeper, California Highway Comm., Sacramento, Cal. TT 1.2: SP 1.2. Aug. 1918 to Aug. 1920 Levelman, Inspector and Chf. of Party on reclamation construction layout, State Reclamation Board, Sacramento. TT 2: SP 1.8: P 0.2: RC 0.2. Aug. to Nov. 1920 Warehouseman and Materials Clerk on dam construction with W. A. Kraner, San Francisco, Cal. TT 0.3: SP 0.3. Nov. 1920 to April 1921 Concrete man on building construction, J. L. McLaughlin Co., San Francisco, Cal. TT 0.4: SP 0.4. Sept. 1921 to Nov. 1925 Timekeeper, Asst. Res. Engr., Gen. Foreman, Asst. Supt., Res. Engr. and Supt. of Constr., California Highway Comm., Redding, Cal. Jan. 1926 to date building inspection for earthquake insurance, Board of Fire Underwriters of the Pacific, San Francisco. TT 4.2: SP 2.9: P 1.3: RC 1.3. TT 10.1: SP 8.6: P 1.5: RC 1.5. Refers to H. S. Comly, F. B. Cook, E. L. Cope, C. S. Donald, H. K. Ward.

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(6) CRAIG, ROBERT STEINER, 541 South Graham St., Pittsburgh, Pa. (Age 24. Born Pittsburgh, Pa.) Graduated, Mech: Drafting (1921) and Structural Drafting (1924), and completed 5 years in Architectural (night) course, Carnegie Inst. of Technology. March to Nov. 1918 Structural Detailer, mill buildings and viaducts, McClintic-Marshall Constr. Co., Rankin Plant. TT 0.7: SP 0.7. Nov. 1918 to June 1919 Draftsman, Power Engr.'s office, Westinghouse Elec. & Mfg. Co., East Pittsburgh, Pa., furnaces, pipe lines and boiler work. TT 0.6: SP 0.6. Aug. 1919 to June 1920 Structural Detailer, mill buildings, American Bridge Co., Shiffler Plant. TT 0.8: SP 0.8. June 1920 to March 1921 Draftsman with W. Edgar Reed, Pittsburgh, Pa., on design of power plants, some steel transmission towers, expedited material, etc. TT 0.8: SP 0.7: P 0.1: D 0.1. May 1922 to June 1923 and Jan. 1924 to July 1925 with Ritter Conley and McClintic-Marshall Co., Leetsdale, Pa., until June 1923 as Structural Detailer, on Castleton Bridge, gas holders and transmission towers, and

after Jan. 1924 Detailer on towers and gas holders, estimated and designed on erection equipment for gas holders, checked on mill and office buildings. *TT 2.6: SP 1.5: P 1.1: D 0.2.* June-Dec. 1923 Structural Detailer, Independent Bridge Co., Pittsburgh, on bridges and towers for rope-haulage system (50 towers). *TT 0.6: SP 0.6.* July 1925 to date Structural Draftsman, Dept. of Public Works, Bureau of Bridges, Allegheny County, on general drawings and assisted in calculating stresses for two bridges over Monongahela River and several smaller bridges. *TT 0.6: SP 0.6. TT 6.7: SP 5.5: P 1.2: D 0.3.* Refers to V. R. Covell, B. F. Hastings, H. R. Hortenstine, J. C. Jordan, G. S. Richardson, C. G. Schade, G. L. Taylor.

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(7) **DAVIS, CHARLES McREA**, 1228 Prospect St., Ann Arbor, Mich. (Age 32. Born Gilby, N. Dak.) 1912 to 1913 Chainman, Rodman, Compassman, Levelman, and Asst. to Logging Engr. cruising timber, mapping and laying out logging railroads, Weyerhaeuser Timber Co., Tacoma, Wash. *TT 1: SP 1.* 1913 to 1914 with Northwestern Improvement Co. (part of Northern Pacific R. R. Co.), on locations of section corners and rough topographical maps of mineral and timber claims on railroad land grants in Cascade Mts., Washington. *TT 1: SP 1.* 1914 to 1916 Special Student, Coll. of Eng., Univ. of Michigan; academic work, U. S. Mil. Acad. 1916 to 1917 with Plant Maintenance Engr., Illinois Steel Co., Chicago, Ill., located railroad spurs, ran levels, took soundings for dredging, estimated ore in docks, put in center lines and supervised some concrete work, assisted in construction of sewers, heavy foundations, docks and miscellaneous plant repairs, studied construction costs and estimating. *TT 1: SP 1.* 1917 to 1918 Lieut., Constr. Div., U. S. Army, in full charge hospital and warehouse construction, Jackson Barracks, La., and Ft. St. Philip, on staff of Chf., Constr. Div. *TT 0.4: P 0.4: RC 0.4.* 1917 to date (except about 5 months) in private practice as Constr. Engr. Detroit, Mich., engaged as follows: 1917 to 1918 on machinery foundations and miscellaneous plant alterations; 1918 to 1921 acted as Constr. Engr. on numerous industrial plants, furnished designs and estimates and supervised construction; foundations, lateral and tunnel sewers, yard paving, railroad spurs, underground conduits, reinforced concrete and masonry, and miscellaneous alterations and additions for factories; 1921 to 1923 built 3 miles of tunnel sewers, brick and monolithic concrete, designed steel tunnel forms, made estimates and supervised all work; 1923 to 1925 designed and built church house for B. Graham, Campbell Ave. M.E., three reinforced concrete transfer-stations for city garbage, alley paving, Dept. of Public Works, underground conduit construction (approx. 5 miles) for Detroit Fire Comm., reinforced concrete bridge, T-beam type over River Rouge and Allen Road (181 ft. by 56 ft., two piers, two abutments), Wayne County Road Comms. *TT 7.6: P 7.6: RC 7.6: D 7. TT 11: SP 3: P 8: RC 8: D 7.* Refers to J. S. Hancock, G. L. Hughes, G. Miller, A. N. Outzen, J. W. Reid, H. A. Shuptrine.

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(1) **DEAKYNE, HERBERT**, 601 Army Bldg., 39 Whitehall St., New York City. (Age 58. Born Deakynerville, Del.) 1890 U. S. Mil. Acad. 1893 Engr., School of Application, 1917 Army War Coll. *TT 2: SP 2.* 1893 to date with Corps of Engrs., U. S. Army, as follows: 1893 to 1896 in local charge of jetty construction at Humboldt Bay, Cal.; 1896 to 1901 in local charge of fortification work at San Francisco and San Diego, Cal.; Member, Secy. and Disbursing Officer of California Debris Comm. at San Francisco; 1901 to 1903 in charge of fortification work and river and harbor improvements, Tampa, Fla.; 1903 to 1905 commanding company and battalion of engineer troops, Ft. Leavenworth, Kans.; 1905 to 1907 in charge of lighthouse service and harbor improvements, on fortification work, and Chf. Engr. Officer, Philippines Div., Manila, Philippine Islands; 1908 to 1912 in charge of fortification work and river and harbor improvements, Philadelphia, Pa.; Member, Board of Engrs. for Rivers and Harbors; 1912 to 1916 in charge of river and harbor improvements, Kansas City, Mo.; 1916 to 1917 in office of Chf. of Engrs., Washington, D. C., and at Army War Coll.; 1917 to 1919 at Philadelphia organizing 19th Engrs. (Ry.) and in France in command of 19th Engrs. (Ry.) and 11th Engrs. (Ry.), Director of Light Railways and Roads, Chf. Engr., Paris Group, and Chf. Engr., Second Army; 1919 to 1920 in charge of fortification work, and river and harbor improvements, and Div. Engr., Gulf Div., New Orleans, La.; 1920 to 1925 at San Francisco in charge of fortification work and river and harbor improvements, and Div. Engr., Pacific Div.; Member, California Debris Comm.; since 1925 at New York in charge of river and harbor improvements and Div. Engr., Northeast Div.; Member of Board of Engrs. for Rivers and Harbors; Member, New York Harbor Line Board; Member, Board on Deeper Waterway from Great Lakes to Hudson River, at present Col., Corps of Engrs., U. S. Army. *TT 31.3: P 31.3: RC 31.3: D 23. TT 33.3: SP 2: P 31.3: RC 31.3: D 23.* Refers to W. M. Black, W. C. Langfitt, J. Meigs, H. Taylor, O. Von Geldern.

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(1) **De-FILIPPO, FRANK**, 305 East 111th St., New York City. (Age 23. Born New York City.) 1924 B. S. in C. E., N. Y. Univ. TT 2: SP 2. June 1924 to Aug. 1925 Surveyor, U. S. Engr. Dept., 1st Dist., New York City, on river and harbor improvement. TT 1.2: SP 1.2. Aug. 1925 to Jan. 1926 Transitman, Dept. of Water Supply, Gas and Electricity, Brooklyn, N. Y., at Milburn Pumping Station, Baldwin, N. Y., in charge of survey party locating pipe-line structures, computed and prepared monthly estimates for concrete quantities, steel reinforcement, etc. TT 0.5: SP 0.5. Jan. 1926 to date Jun. Engr., Board of Transportation, New York City, field location, plotting water gates, computing quantities, plotting progress sheets and general field and office work on Route 102-Sec. 6. TT 0.2: SP 0.2. TT 3.9: SP 3.9. Refers to W. S. L. Cleverdon, A. Haring, E. G. Hooper, C. T. Schwarze, C. H. Snow.

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(13) **DIETERICH, JAMES WILLIAM**, 75 New Montgomery St., San Francisco, Cal. (Age 37. Born South Portland, Me.) Past 20 years member of firm, Dieterich-Post Co., San Francisco, dealers in engineering supplies and surveying instruments; has been in constant touch with engineers and their problems, assisting in securing efficient help, etc. Refers to L. Aldrich, H. B. Hammill, J. B. Leonard, G. A. Posey, C. L. Rakestraw.

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(8) **DOOLING, CLARENCE ROBERT**, Div. of Highways, Carbondale, Ill. (Age 32. Born Springfield, Ill.) 1915 B. S. in C. E., Catholic Univ. of America. TT 2: SP 2. July 1915 to Feb. 1919 (except 15 months in Infantry and with Engr. Troops, U. S. Army, 7 months as 2d Lieut.) Jun. Highway Engr., State Highway Dept., Springfield and Aurora, Ill., surveys, highway design and inspection of concrete and bituminous pavements and concrete bridges. TT 2.4: SP 1.2: P 1.2. Feb. to Sept. 1919 with United States Coal & Coke Co., Lynch, Ky., on surveys, location of buildings, streets, sewers, etc., later in charge of compiling cost data on types of construction. TT 0.6: SP 0.3: P 0.3: RC 0.3. Sept. 1919 to date Asst. Dist. Engr., Dist. No. 9, Div. of Highways, Carbondale, Ill., directing activities of district, embracing road and bridge surveys, design, estimates, construction and maintenance and acting in consulting capacity with township and county highway officials. TT 6.4: P 6.4: RC 6.4: D 2.6. TT 11.4: SP 3.5: P 7.9: RC 6.7: D 3.4. Refers to R. R. Benedict, G. F. Burch, H. B. Bushnell, C. M. Hathaway, G. M. O'Rourke, F. T. Sheets, F. Tarrant.

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(1) **DUPUY, EUGEN**, Casilla 10, Cochabamba, Bolivia. (Age 40. Born Charleville, France.) 1909 s/Lieut. de reserve, Mil. Engrs., Ecole Polytechnique, Paris, France. 1909 to 1910 s/Lieut., 3d Regt., Military Engrs., Arras, France. TT 1: P 1. 1910 to 1911 Asst. Secy., Cie Française Methods et entreprises coloniales, Paris. 1911 to 1914 travelling. 1914 to 1915 Asst. Engr. on mining surveys, Backus & Johnston, Morococha, Peru. TT 1: SP 1. 1915 to 1916 Engr. in charge of development of Silver Lead Mines for Geo. Crawford's Syndicate at Huaraz, Peru. TT 1: P 1: RC 1. 1916 to 1917 Sampler and Calculator of results in mining examination for Chile Exploration Cy, Chuquicamata, Chile; Foreman of Asphalt Dept. on construction of reinforced concrete and asphalt pipes and tanks. TT 1: P 1: RC 0.5: D 0.5. 1917 to 1918 Engr., Llallagua Tin Mines, Bolivia, general surveys, connections, construction of long tunnels. TT 1: P 1: RC 1. 1918 to 1919 Engr., Machacamarca Uncia R. R. construction, Bolivia, preliminary surveys, bridge computations. TT 1: P 1. 1919 to date Contr. Engr. at Cochabamba, Bolivia; Designer and Builder of Caja de Ahorros (masonry reinforced concrete beams), Colegio de la Salle (reinforced concrete, factory type, beams 7m. long, 3 slabs, 5-m. span), reinforced concrete aqueduct for Cia Luz y Fuerza de Cochabamba, new front of Cathedral of Cochabamba (concrete block construction, pile foundations, reinforced concrete floors), irrigation project for Sociedad de propietarios de Cuchicamha, diversion canal (7 km., dam 15 m. high), and Designer of reinforced concrete bowstron for Cia Luz y Fuerza de Cochabamba (50-m. span). TT 7: P 7: RC 7: D 7. TT 15: SP 3: P 12: RC 9.5: D 7.5. Refers to A. B. Bentzon, J. H. Burgoyne, J. B. Cameron, P. C. Campbell, V. M. Crown, W. L. Milner.

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(10) **EVANS, JOHN CLIFFORD**, Wilson Dam, Florence, Ala. (Age 40. Born Philadelphia, Pa.) 1908 B. S. in Ch. E., Univ. of Pa. TT 2: SP 2. June 1908 to Feb. 1909 and Oct. 1910 to Oct. 1911 Asst. Supt., Pinkerton Constr. Co., Philadelphia, Pa., grading, excavating and erecting washery for iron ore at Dillaburg, Pa., and excavating and grading for a railroad; assisted in directing work. TT 1.7: SP 1.7. Feb. 1909 to June 1910 chemical work, Whitall Tatem Co., Millville, N. J. June to Sept. 1910 drafting, with Keady & Mattison, Ambler, Pa. TT 0.3: SP 0.3. Oct. 1911 to Jan. 1918 Asst. Chemist, Bureau of Standards, Pittsburgh, Pa. Jan. 1918 to Feb. 1919 Chemical Engr., Hercules Powder

Co., at Kenvil, N. J., in charge of chemical research and engineering work in converting wood pulp into nitro-cellulose, had charge of small experimental plant. *TT 1: P 1: RC 1.* March 1919 to Dec. 1922. Chemist, Alpha Portland Cement Co. Dec. 1922 to date. Testing Engr., Hugh L. Cooper & Co., in charge of testing of materials in connection with concrete work and of inspection of cement, gravel and sand on Wilson Dam, carried out investigations of effect of water and hydrated lime on concrete. *TT 3.2: P 3.2. TT 8.2: SP 4: P 4.2: RC 1.* Refers to D. P. Cooper, F. P. Fifer, T. A. Forbes, J. W. Hall, J. D. Moore, J. C. Stiles.

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(7) FARRELL, KINGSTON ALLEN, 303 So. State St., Ann Arbor, Mich. (Age 39. Born Newburgh, Ont., Canada.) 1915 Licensed Land Surveyor, Ontario. 1912 B. A. Sc. in Civ. Eng., Univ. of Toronto. *TT 2: SP 2.* Vacations 1908-1910 and April 1913 to May 1915 Asst. Surveyor, Speight & van Nostrand, Land Surveyors, Toronto, Ont. *TT 2: P 2: RC 1.5: D 0.5.* 1911 to 1912 Rodman and Transitman, Canadian Pacific Ry. Co. *TT 1: SP 0.5: P 0.5.* May 1915 to June 1916 Asst. Engr. with M. E. Cooley on valuation of Public Service Ry. & Elec. Cos., New Jersey. *TT 1: P 1: RC 0.5.* July to Nov. 1916 Surveyor with David Beatty, survey of Foleyette Township, Ont. *TT 0.4: P 0.4: RC 0.4.* Dec. 1916 to June 1917 Engr. with M. E. Cooley on valuation of Public Service Elec. Co., New Jersey. *TT 0.5: P 0.5: RC 0.5.* June 1917 to Sept. 1919 Lieut., Canadian Engrs., in France. *TT 2.3: SP 0.5: P 1.3: RC 1.7.* Oct. 1919 to June 1920 Engr., Pennsylvania Power & Light Co., Allentown, Pa. *TT 0.7: P 0.7: RC 0.7.* Oct. 1920 to Dec. 1924 Engr., Underwood Contr. Corporation; Mgr., home and branch office, Supt. of Constr., estimating and purchasing, in charge of construction of bank, office, church and library buildings. *TT 4.3: P 4.3: RC 4.3: D 0.5.* Jan. to Oct. 1925 Engr. with H. E. Riggs on valuation of Kansas City Rys. Co. *TT 0.8: P 0.8: RC 0.8.* Nov. 1925 to date Engr., valuation and survey work, Ann Arbor, Mich. *TT 0.4: P 0.4: RC 0.4. TT 15.4: SP 3: P 12.4: RC 10.8: D 1.* Refers to A. R. Bailey, M. E. Cooley, T. H. Hogg, O. A. R. V. Jensen, O. K. Olsen, H. E. Riggs.

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(3) FISHER, GEORGE HENRY BEATTY, Care, Canadian & Gen. Finance Co., Ltd., 357 Bay St., Toronto, Ont., Canada. (Age 38. Born Sparta, N. J.) 1911 to 1913 secretarial work, Pearson Eng. Corporation, Inc., New York. 1913 to 1916 Secy. to Managing Director and Vice-Pres., Ebro Irrigation & Power Co., Ltd., Barcelona, Spain, compiling reports, on estimates of costs, etc. 1917 and 1919 to 1921 Secy. and Asst. to A. W. K. Billings, Cons. Engr., at New York (1917) and Barcelona. 1918 with U. S. Engrs., A. E. F., France. 1922 to date Secy., Eng. Dept., Canadian & Gen. Finance Co., Ltd., Engrs. and Purchasing Agts. for large groups of public utilities in Brazil, Mexico and Spain; in charge of general office routine, etc., supplying associated companies with technical reports, papers, standards, etc. Refers to A. W. K. Billings, G. R. G. Conway, F. Glenton, Jr., J. G. Hollman, J. A. Sargent.

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(13) FISHER, HENRY BUFORD, 1245 Versailles Ave., Alameda, Cal. (Age 28. Born Alameda, Cal.) 1923 B. S., Univ. of Cal. *TT 2: SP 2.* June-Sept. 1918 Field Asst., U. S. Geological Survey, Topographic Branch, military sketching on Port Crescent Quadrangle; Rodman on Lake Crescent Quadrangle, Port Angeles, Wash. May to Aug. 1919 Field Draftsman, Pacific Gas & Elec. Co., computation of survey notes, mapping and transit work, Auburn, Cal. Jan. to May 1920 Draftsman and Computer, State Water Comm., office work on hydrographic investigation, San Francisco, Cal. *TT 0.3: SP 0.3.* May to Aug. 1920 Hydrographer, Emergency Water Conservation Conference, survey of pumping plants and stream-flow measurements on Sacramento River, Colusa, Cal. *TT 0.3: SP 0.3.* May 1921 to Aug. 1922 Asst. Hydr. Engr., Grade III, Div. of Water Rights, California, and Dec. 1922 to Jan. 1923 office work in connection with applications for water rights, San Francisco and Sacramento. *TT 1.3: SP 1.3.* June-Aug. 1923 Asst. Engr. with Chas. H. Lee, Cons. Engr., on hydrographic survey, compilation of data, leveling and drafting. *TT 0.3: SP 0.3.* Sept. 1923 to July 1924 Asst. Hydrographer, East Bay Water Co., Oakland, stream flow measurements and compilation of data. *TT 0.8: SP 0.8.* July 1924 to date with East Bay Municipal Utility Dist., until Jan. 1925 as Asst. Engr., designs and estimates on Mokelumne River water-supply project, then Purchasing Agt., field and office supplies and equipment, and since Jan. 1926 Asst. Engr., Hydrographic Dept. *TT 1.6: P 1.6: RC 1: D 0.5. TT 6.6: SP 5: P 1.6: RC 1: D 0.5.* Refers to P. Bailey, E. N. Bryan, W. S. Cone, A. P. Davis, F. W. Hanna, E. Hyatt, Jr., C. H. Lee, J. Munn, F. T. Oakley.

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(6) FOIGHT, CLARENCE DOUGLAS, 5829 Holden St., Pittsburgh, Pa. (Age 30. Born Pittsburgh, Pa.) Sept. 1914 to June 1915 student, Pennsylvania State Coll. Sept. 1915 to April 1917 student in Elec. Eng., Carnegie Inst. of Technology and (June 1916 to Jan.

1917) with U. S. Army. *TT 0.7: SP 0.7.* April 1917 to June 1919 Sergeant, 2d Lieut. and 1st Lieut., Machine Gun Co., 316th Inf., U. S. Army, map work and calculations in connection with overhead indirect machine gun firing. *TT 2.2: SP 2.2.* Oct. 1919 to June 1920 Journeyman Electrician, Jones & Laughlin Steel Co., Pittsburgh, installing electrical equipment, also some maintenance work in South Side Works, generally in charge of small work party. *TT 0.7: SP 0.7: RC 0.7.* July to Oct. 1919 and Oct. 1920 to Feb. 1923 with Mech. Div., Bureau of Water, Pittsburgh, first as Inspector on improvements in water-pumping stations and after Oct. 1920 Draftsman on design and layout work, supervision of boiler and engine tests, and making studies and reports for improving efficiency and lowering cost of service. *TT 2.7: SP 1.7: P 1: RC 1.3: D 1.* Feb. 1923 to Aug. 1925 Draftsman, The J. N. Chester Engrs., Pittsburgh, designing and supervising design of water-filtration and softening plants, sewage-disposal plants, water-distribution and sewerage systems and water and sewage-pumping stations. *TT 2.5: SP 0.5: P 2: RC 2: D 2.* Aug. to Nov. 1925 Draftsman, The Koppers Constr. Co., Pittsburgh, layout and design of structures and apparatus for destructive distillation of coal and recovery of by-products. *TT 0.3: P 0.3: RC 0.3: D 0.3.* Nov. 1925 to date Engr., Rust Eng. Co., Pittsburgh, layout, and design of power plants and general engineering during construction. *TT 0.2: P 0.2: RC 0.2: D 0.2.* *TT 9.3: SP 5.8: P 3.5: RC 4.5: D 3.5.* Refers to J. T. Campbell, D. E. Davis, A. D. Keagy, F. W. Lyon, F. S. Stow.

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(7) FOLK, SAMUEL BYRON, State College Station, Fargo, N. Dak. (Age 28. Born Marion, Ohio.) 1920 B. C. E., Ohio State Univ. 1923 M. S. in C. E., Case School of Applied Science. *TT 2: SP 2.* June to Sept. 1917 Chainman, Rodman, etc., Pennsylvania R. R. May-Sept. 1918 Special Transitman, Erie R. R., at Marion, Ohio, in complete charge of alignment of division on rebalasting curves. Oct. 1918 to Sept. 1919 Asst. in astronomy during War, in charge of classes in aerial navigation under Prof. H. C. Lord, Ohio State Univ., responsible for night observing and computation periods of students; in summer had charge of surveying party. *TT 1: SP 0.5: P 0.5: RC 0.2.* Sept. 1919 to Sept. 1920 (part of time) Instructor in Civ. Eng., Ohio State Univ. and in charge of party on land and topographic surveying at Akron, Ohio, under Prof. R. C. Sloane. *TT 1: SP 0.5: P 0.5: RC 0.3.* Sept. 1920 to Sept. 1924 Instructor in mechanics and materials testing laboratory, Case School of Applied Science, in charge of class and laboratory work, 1 summer in charge of railroad field work at camp; also (spare time and summers) on commercial testing of materials; acted as Expert in investigations independently and in co-operation with Prof. R. H. Danforth. *TT 4: P 4: RC 4.* Sept. 1924 to date Instructor in Civ. Eng., North Dakota Agricultural Coll., in charge of highway work, reinforced concrete and surveying. *TT 1.6: P 1.6: RC 1.6.* *TT 6.6: SP 2: P 4.6: RC 4.6.* Refers to F. H. Eno, W. E. Keyser, C. T. Morris, G. F. Schlesinger, J. R. Shank, R. C. Sloane.

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(11) FROEHDE, FREDERICK CHARLES, City Hall, Pomona, Cal. (Age 36. Born Chicago, Ill.) 1907 to 1910 (3 years) student, Univ. of Illinois. *TT 1: SP 1.* Feb. 1910 to Sept. 1917 and July 1919 to May 1921 City Engr. and Supt. of Streets, Upland, Cal., supervised construction and (until Sept. 1917) designed culverts, reinforced concrete bridges and storm drains, drew plans, cross-sections and specifications for pavements, and (after July 1919) on road design and construction, sanitary sewers. *TT 9.3: P 9.3: RC 9.3.* Sept. 1917 to July 1919 2d Lieut. and 1st Lieut., 23d Engrs., U. S. Army, first 3 months in training school, then had charge of camp construction in United States and road building in France. *TT 1.4: P 1.4: RC 1.4.* May 1921 to date City Engr. and Supt. of Streets, Pomona, Cal., designed outfall sewer system, supervised construction, laid sanitary sewers (8 miles) and pavement, and resurfaced light pavements (20 miles). *TT 4.7: P 4.7: RC 4.7.* *TT 16.5: SP 1: P 15.5: RC 15.5.* Refers to F. G. Dessery, G. C. Fitz Gerald, R. F. Goudy, G. S. Hinkleley, A. P. Learned, R. V. Orblson, A. J. Smith, F. M. Veatch.

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(1) GEHRIG, FRIEDRICH WILLIAM, 453 Fourteenth St., Brooklyn, N. Y. (Age 30. Born Tecklenburg, Germany.) 1923 Dipl. Ing., Div. Univ. of Dresden, Germany. *TT 2: SP 2.* March to April 1921 Draftsman on structural steel and May to Dec. 1923 Structural Steel Designer on industrial buildings, cranes and bridges, with Steffens & Noelle, Berlin, Germany. *TT 0.7: SP 0.1: P 0.6: D 0.6.* July 1921 to Jan. 1922 Supt. of Constr., Liebold & Co., Dresden, Germany, on reinforced concrete bridge construction. *TT 0.4: P 0.4.* Aug. 1922 to May 1923 Asst. Engr. of Constr., Ph. Holzman & Co., Frankfurt Dept., Gera, Germany, on reinforced concrete construction, water-works. *TT 0.7: P 0.7.* Dec. 1923 to April 1924 Draftsman and Foreman, Metal & Themit Corporation, New York City, at Carteret (N. J.) Plant. *TT 0.2: P 0.2.* April 1924 to April 1925 Draftsman and Designer, J. Di Stasio Co., New York City, on reinforced concrete and structural steel construction. *TT 1.1: P 1.1.*

D 1.1. April to Aug. 1925 Supt. of Constr. on reinforced concrete factory building for Ch. Miller Co., North Bergen, N. J., with Himmelsbach & Schlich, Cons. Engrs., New York City. *TT 0.3: P 0.3: RC 0.3.* Aug. 1925 to Jan. 1926 Detailer and Designer, White Constr. Co., New York City. *TT 0.4: P 0.4: D 0.4.* Jan. 1926 to date Structural Engr. with O. S. Schlich, Cons. Engr., New York City. *TT 0.2: P 0.2. TT 6.2: SP 2.1: P 4.1: RC 0.3: D 2.1.* Refers to U. W. T. Berg, J. R. Freeman, G. W. Fuller, A. Hazen, G. Lindenthal, O. S. Schlich, M. P. Van Buren.

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(13) GERHART, ROBERT WHITFIELD, 2401 Ridge Road, Berkeley, Cal. (Age 22. Born Kansas City, Mo.) 1925 B. S., Coll. of Civ. Eng., Univ. of Cal. *TT 2: SP 2.* Dec. 1925 to date Asst. Univ. Engr., Office of Comptroller, Univ. of California, on investigation, design and inspection of civil engineering work; since Jan. 1926 also Graduate Student, Coll. of Civ. Eng., same Univ. *TT 0.2: P 0.2. TT 2.2: SP 2: P 0.2.* Refers to R. E. Davis, C. Derleth, Jr., F. S. Foote, H. B. Foster, C. G. Hyde, P. A. Swafford.

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(1) GILES, RANALD VICTOR, 54 Monroe St., Brooklyn, N. Y. (Age 24. Born Wellington, England.) 1922 B. S. Wesleyan Univ. 1924 B. S., Mass. Inst. Tech. *TT 2: SP 2.* June to Sept. 1923 Asst. to Engr., Portland Cement Association. Sept. 1924 to date Instructor, Civ. Eng. Dept., Brooklyn Polytechnic Inst. June to Sept. 1925 Timekeeper, Turner Constr. Co., and some line and grade work and materials checking. *TT 1.6: P 1.6. TT 3.6: SP 2.3: P 1.3.* Refers to H. R. Codwise, R. Evers, H. P. Hammond, E. J. Squire, B. H. Walt.

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(1) GOODWIN, ELMER CLARK, Room 2526, Municipal Bldg., New York City. (Age 37. Born New York City.) Licensed Prof. Engr., New York State. 1910 C. E., Columbia Univ. *TT 2: SP 2.* Aug. to Nov. 1910 Rodman, Erie R. R. Co. *TT 0.3: P 0.3.* Jan. to Sept. 1911 Rodman, New York Central R. R. Co. *TT 0.7: P 0.7.* Nov. 1911 to Nov. 1912 Asst. Engr., Board of Water Supply, inspection, field and office work, New York City Aqueduct. *TT 1: P 1.* Dec. 1912 to June 1918 and July to Dec. 1919 Jun. Engr., Public Service Comm., 1st Dist., New York State, on subway construction, field work, office work, inspection, etc. (5½ years) and office work in connection with closing up subway contracts. *TT 6: P 6: RC 0.5.* July 1918 to July 1919 Ensign and Lieut. (j. g.), Civ. Engr. Corps, U. S. N. R. F., on construction of reinforced concrete buildings at Washington, D. C., and Indian Head, Md. (Naval Proving Grounds); Asst. Public Work Officer and in charge of projects under construction. *TT 1: P 1: RC 1.* Dec. 1919 to date Examining Engr., (Head of Eng. Bureau), Dept. of Street Cleaning, New York City, has had supervision and direction in design and construction and in preparation of specifications and factory inspection of automotive equipment and material-handling machinery, and (since 1919) active charge of engineering features of snow fighting and snow removal. *TT 6.2: P 6.2: RC 6.2: D 6.2. TT 17.3: SP 2: P 15.3: RC 7.7: D 6.2.* Refers to R. E. Dougherty, R. H. Jacobs, J. S. Langthorn, J. H. Myers, R. Ridgway, C. D. Searles.

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(1) GREEK, CURTIS MARCELLAN, Box 168, Maracaibo, Venezuela. (Age 30. Born Latrobe, Pa.) 1914 to 1917 student, Univ. of Pittsburgh. *TT 1: SP 1.* April 1919 to Oct. 1920 Mech. Draftsman, car and locomotive design (3 months), road test on locomotives, Chicago, Rock Island & Pacific R. R. Co., Silvis, Ill. *TT 1.5: SP 1.5.* Jan. to March 1921 with Mech. Eng. Dept., Union Pacific R. R. Co., Omaha, Nebr., locomotive design. *TT 0.3: P 0.3.* April to Sept. 1921 Mech. Draftsman and Field Engr., Midwest Refining Co., Casper, Wyo., refinery and gas-plant design. *TT 0.5: P 0.5.* Nov. 1921 to March 1922 Asst. Engr., Lone Star Gas Co., Dallas, Tex., construction and design on absorption plants, pipe-line surveys. *TT 0.4: P 0.4: RC 0.4.* May 1922 to May 1923 Engr. and Draftsman, Venezuela Sun Co., Ltd., Maracaibo, Venezuela, office engineering, computation of notes and mapping. *TT 1: P 1.* May 1923 to Aug. 1924 Office Engr. and Draftsman, Perija Exploration Corporation, Maracaibo, computing and compiling records, maps and surveys. *TT 1.3: P 1.3: RC 1.3.* Nov. 1924 to June 1925 Jun. Mech. Engr., Mississippi River Comm., Memphis, Tenn., design and construction of 32-in. river-suction dredges. *TT 0.6: P 0.6.* June 1925 to date Office Engr., Orinoco Oil Co., Maracaibo, in charge of all computations and compiling of office records. *TT 0.7: P 0.7: RC 0.7. TT 7.3: SP 2.5: P 4.8: RC 2.4.* Refers to W. Givens, R. P. Harkness, R. M. McCrone, J. G. Roberts. (Applies in accordance with Sec. 1, Art. I, of the By-Laws.)

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(14) GREENE, JOHN QUINCY ADAMS, 114 West Tenth St., Kansas City, Mo. (Age 32. Born Washington, D. C.) Feb. 1911 to Jan. 1913 tracing and drafting, Concrete Steel Co., Chicago, Ill. *TT 0.9: SP 0.9.* Feb.-Dec. 1913 Timekeeper, Material Clerk and Paymaster.

Van Haffen Constr. Co., Joplin, Mo. TT 0.9: SP 0.9. Jan. 1914 to Jan. 1915 Asst. to Supt., German Hospital Association, Kansas City, Mo. TT 1: SP 1. April 1915 to Oct. 1917 Instrumentman and Asst. Engr., Union Pacific R. R. Co., Kansas City, Mo., about 3 months in complete charge of 14-mile residency on double-track construction. TT 1.5: P 1.5: RC 0.2. Oct. 1917 to June 1919 Private, 1st Class, K Co., 23d Engrs., U. S. Army, 3 months Chf. of Eng. Party in Southern France, about 3 months Laborer in rock quarry, about 3 months building camps in United States and remainder of time rebuilding French roads, some resurfacing and some drainage work. TT 1.6: SP 0.6: P 1. July 1919 to Sept. 1920 Transitman, U. P. R. R. Co. TT 1.2: SP 0.2: P 1. Sept.-Dec. 1920 Transitman, Harrington, Howard & Ash, Kansas City, on drainage project in Arkansas, in charge of party. TT 0.2. P 0.2. Jan. to April 1921 Right-of-Way Engr., Missouri, Kansas & Texas Ry. Co., Parsons, Kans., securing data for U. S. Govt. reports. TT 0.2: P 0.2. April-Dec. 1921 Asst. Engr., Tela (Spanish Honduras) R. R. Co., building railroad lines and bridges, taking care of drainage, complete charge of engineering in one district. TT 0.7: P 0.7. Jan.-Sept. 1922 Terminal Engr., Truxillo (Spanish Honduras) R. R. Co., some designing, all engineering on building Porteau Castilla, including 400-ft. canal (80 ft. wide) and filling (with dredge) entire townsite, construction of 80 miles of terminal tracks, 1500-ft. wharf with steel banana shed, engine house and railroad shop buildings, residences, office buildings, etc., including sewerage and water lines. TT 0.8: P 0.8: RC 0.5: D 0.3. Oct. 1922 to May 1924 Asst. Mgr., Cement Gun Dept., Pratt-Thompson Constr. Co., Kansas City responsible for completion of all and in actual charge of several contracts. TT 1.5: P 1.5: RC 0.5. May 1924 to date Field Mgr. and Treas., Gunite Concrete & Constr. Co., Kansas City, responsible for contracts, some designing. TT 1.9: P 1.9: RC 1.9. TT 12.5: SP 3.6: P 8.9: RC 3.2: D 0.3. Refers to J. L. Darnell, A. W. Galbreath, A. S. Holway, C. L. McKesson, G. A. Ridgeway, E. J. Straub, O. S. Struthers.

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(7) GRUETZMACHER, RAYMOND DEWEY, 203 Jauneau Ave., Milwaukee, Wis. (Age 27. Born Milwaukee Wis.) Sept. 1923 to June 1924 student in surveying and concrete, Univ. of Wisconsin, Extension Div. Jan. 1918 to March 1919 Chainman and Rodman, Chicago, Milwaukee & St. Paul Ry. TT 1.2: SP 1.2. March 1923 to date with Board of Public Land Commrs., City Planning Dept., Milwaukee, as Rodman (1 year), Jun. Map Draftsman (1 year), Jun. Engr. (8 months) and at present Asst. Engr., in charge of field party on surveys and making designs and estimates for construction and development of playgrounds; surveys, designs, and drafting on city planning. TT 3: SP 2: P 1. TT 4.2: SP 3.2: P 1. Refers to R. H. Cahill, C. S. Gruetzmacher, E. L. Knebes, H. A. Petermann, J. P. Schwada.

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(15) HALL, WALTER WILLIAM, 202 Carnahan St., San Antonio, Tex. (Age 31. Born Madella, Minn.) 2 years student, Coll. of Eng., Univ. of Cincinnati. TT 0.7: SP 0.7. May 1912 to Oct. 1913 Chainman and Rodman, and Aug. 1915 to Oct. 1916 Rodman and Recorder, U. S. Eng. Field Party, Houston (Tex.) Ship Channel. TT 2.6: SP 2.6. Oct. to Dec. 1916 Concrete Inspector, City of Dayton, Ohio. TT 0.3: SP 0.3. April to June 1917 Draftsman, County Engr.'s office, Lebanon, Ohio. TT 0.3: SP 0.3. Aug. 1923 to Feb. 1924 with Texas Constr. Co., Houston, in charge of field party giving line and grades on steam-electric power-plant construction. TT 0.5: P 0.5: RC 0.5. Feb. to Sept. 1924 Office Engr., Houston Gas & Fuel Co., on special construction; plans for machinery and piping installations and for high-pressure mains. TT 0.6: P 0.6: RC 0.6. Sept. 1924 to date Asst. to Field Engr., Flood Prevention Dept., San Antonio, Tex., in charge of field party on topographic survey of reservoir and of field party on construction of a dam. TT 1.6: P 1.6: RC 1.6. TT 6.6: SP 3.9: P 2.7: RC 2.7. Refers to S. F. Crecellus, H. Culpeper, R. S. Fessenden, A. F. Schramm, F. H. Shaw.

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(15) HANCOCK, AUSTIN FRUITT, 1831 Fifth Ave., Ft. Worth, Tex. (Age 27. Born Lebanon, Tenn.) Sept. 1921 to June 1924 Student in Civ. Eng., Texas Agricultural and Mechanical Coll. TT 1: SP 1. Sept. 1916 to Feb. 1920 (except Sept. to Dec. 1918) with City Eng. Dept., Ft. Worth, Tex., until Sept. 1918 platting surveys, profiles, cross-sections, etc., and making maps and other drafting work in connection with laying out and constructing large army training camp and three aviation fields; after Dec. 1918 Acting Office Engr. in charge of design of grades for paving, sewers, etc., and designing storm sewers, extensions to water mains, etc. TT 3.3: SP 3: P 0.3: RC 1.1: D 1.1. Sept. to Dec. 1918 with Special Training Detachment, U. S. Army. TT 0.2: SP 0.2. Feb. to Aug. 1920 Instrumentman, and Aug. 1920 to Sept. 1921 Res. Engr. on highway construction, Tarrant County, Tex. TT 1.6: SP 0.5: P 1.1: RC 1.1. June to Sept. 1922 Res. Engr., Tarrant County, in charge of 14 miles, 18-ft. limestone rock asphalt. June to Sept. 1923 Materialman and Asst. Supt., Gen.

Constr. Co., Ft. Worth, on street paving. TT 0.3: P 0.3: RC 0.3. June to Sept. 1924 Eng. Draftsman, Humble Oil & Refining Co., Houston, Tex. TT 0.3: SP 0.3. Sept. 1924 to date with F. J. Von Zuben, Cons. Engr., until June 1925 designing water and sanitary-sewer systems, street paving, city planning, surveys and general municipal engineering; assisted in preparing 15 miles Federal Aid highway plans; since June 1925 Asst. in charge of Kessler designed Memorial Park, Ft. Worth; in charge of installation of water system for a small town, and designed water and sewer system and sewage-disposal works for two cities in Texas. TT 1.4: P 1.4: RC 1.4: D 1.4. TT 8.4: SP 5.1: P 3.1: RC 3.9: D 2.5. Refers to R. V. Glenn, D. L. Lewis, J. Mead, A. D. Stivers, R. G. Taber, F. J. Von Zuben, L. L. Winans.

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(10) HARRISON, CECIL ELI, 125 S. 11th St., Nashville, Tenn. (Age 27. Born Monticello, Ind.) 1923 B. S. C. E., Purdue Univ. TT 2: SP 2. June 1923 to Sept. 1924 Structural Draftsman, International Steel & Iron Co., Evansville, Ind., details, some checking and estimating. TT 1.3: SP 1.3. Sept. 1924 to Feb. 1926 Structural Draftsman, Nashville (Tenn.) Bridge Co., Checker. TT 1.4: SP 1.4. TT 4.7: SP 4.7. Refers to L. C. Anderson, C. V. R. Fullenwider, W. A. Knapp, H. M. Priest, H. L. Rogers, C. R. Tiebout.

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(7) HART, CLARENCE ARTHUR, 332 E. William St., Ann Arbor, Mich. (Age 29. Born Port Huron, Mich.) 1918 B. S. E. in Civ. Eng., Univ. of Mich. TT 2: SP 2. Feb. to Dec. 1919 Chf. of Survey Party on road location, and Field Engr. on construction, St. Clair County (Mich.) Road Comm. TT 0.8: SP 0.7: P 0.1. Dec. 1919 to July 1920 and Jan. 1921 to Nov. 1922 with Quinton, Code & Hill, Los Angeles, Cal., first drafting and designing irrigation structures, flumes, headgates, etc., and after Jan. 1921 design and special problems in hydraulics, irrigation studies, water storage, rainfall, etc. TT 2.5: SP 0.5: P 2: RC 0.3. July to Dec. 1920 Res. Engr., Gila Land & Cattle Co., Gila Bend, Ariz., construction of 200-h. p. reinforced concrete power-house, sluicing structure and siphon at Point of Rocks, Ariz., supervised technical details and directed construction methods. TT 0.4: P 0.4: RC 0.4. Nov. 1922 to Aug. 1923 in private practice at Los Angeles, construction of residences. TT 0.8: P 0.8: RC 0.8. Aug. to Oct. 1923 Supt., Curlett & Beelman, Architects, Los Angeles, construction of office building for Southern California Gas Co. TT 0.1: P 0.1. Nov. 1923 to March 1924 with Cia Constructora Richardson, Esperanza, Sonora, Mexico, as Asst. Constr. Engr., Yaqui River diversion dam, Chf. of survey parties, charge of subcontract forces, sketch plans for layouts of power, water and sewer lines, living quarters, etc. TT 0.3: P 0.3: RC 0.3. March to April 1924 Res. Engr., Sonderegger & Hincks, Los Angeles, on pier construction at Long Beach, Cal. TT 0.1: P 0.1. April to Nov. 1924 Reinforced Concrete Designer, Structural Dept., Dwight P. Robinson & Co., New York City, on construction of 180 000-h. p. power-plant for Los Angeles Gas & Elec. Co., at Seal Beach. TT 0.6: P 0.6: RC 0.3: D 0.3. Dec. 1924 to Sept. 1925 with H. R. Erdman, Street and Sewer Contr., Los Angeles, superintendence of grading, paving, construction of reinforced concrete structures, estimates on new work, cost analysis, etc. TT 0.7: P 0.7: RC 0.7. Sept. 1925 to date graduate work in San. Eng., Univ. of Michigan; part of time with Hoad, Decker, Shoecraft & Drury, Cons. Engrs., on design of sanitary structures. TT 0.4: P 0.4: D 0.1. TT 8.7: SP 3.2: P 5.5: RC 3.3: D 0.7. Refers to W. H. Code, W. R. Drury, H. E. Green, L. C. Hill, R. A. Hill, W. C. Hoad, J. N. Irving, D. W. Murphy.

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(10) HAWKINS, WYATT SWIFT, P. O. Box 703, Gulfport, Miss. (Age 49. Born Hannibal, Mo.) 2 years student, Centenary Coll., Palmyra, Mo. June 1899 to April 1906 Field Engr., U. S. Dawes Comm., Muskogee, Okla. TT 6.7: P 6.7: RC 3: D 1.7. April 1906 to July 1908 Chf. Engr., Osage Indian Reservation, under Commr. of Indian Affairs, resurveys and construction. TT 2.2: P 2.2: RC 2.2: D 2.2. July 1908 to March 1910 Special Engr., Missouri, Kansas & Texas Ry. Co., design and estimate, raising grade of track above high-water (estimated cost \$14 000 000). TT 0.7: P 0.7: RC 0.7: D 0.7. March 1910 to Jan. 1913 engineering, San Antonio, Tex., municipal work and road and bridge designs. TT 2.7: P 2.7: RC 2.7: D 2.7. Jan. 1913 to April 1915 State Highway Engr. of Missouri. TT 2.2: P 2.2: RC 2.2: D 1. April 1915 to Aug. 1917 engineering, Oklahoma City, Okla., acting as Cons. Engr. on municipal projects in various towns. TT 2.2: P 2.2: RC 2.2: D 2.2. Aug. 1917 to Aug. 1919 Capt., 55th Engrs., A.E.F., on railroad and highway construction. TT 2: P 2: RC 2. Jan. 1920 to Jan. 1926 general practice, municipal work, including designing and completing \$780 000 improvement program at Greenwood, Miss. TT 6: P 6: RC 6: D 6. Jan. 1926 to date County Engr., Gulfport, Miss., on \$1 500 000 road and bridge program; City Engr., Biloxi, Miss., \$335 000 paving program, and City Engr., Pass Christian, Miss., general improvement; at present also Cons. Engr. for Branglar Bros., Chicago on \$5 000 000 project at Gulf Hills, associated with Root & Hollister, Landscape

Engrs., Chicago. TT 0.3; P 0.3; RC 0.3; D 0.3. TT 25.3; P 25.3; RC 21.5; D 17. Refers to A. M. Blodgett, L. H. Byam, J. H. Dorroh, G. G. Ehrenborg, S. L. McGlathery, H. D. Shaw.

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(13) HAZEN, FRED GEORGE, 2214 Damuth St., Oakland, Cal. (Age 35. Born Cambridge, Mass.) 1912 B. S. Armour Inst. Tech. TT 2; SP 2. June 1915 to Oct. 1916 Structural Detailer, Cosden & Co., Tulsa, Okla., and (after Feb. 1916) Monsanto Chemical Co., St. Louis, Mo. TT 1.2; SP 1.2. Oct. 1918 to Oct. 1920 Structural Detailer and Checker, Baker Iron Works, and (after Jan. 1920) Llewellyn Iron Works, Los Angeles, Cal. TT 2. SP 2. Oct. 1920 to Jan. 1922 Structural Designer and Jan. 1923 to April 1924 Structural Designer and Checker, Pacific Coast Steel Co., San Francisco. TT 2.5; P 2.5; D 2.5. Jan. 1922 to Jan. 1923 Chf. Structural Draftsman, Union Constr. Co., Oakland, Cal. TT 1; P 1; RC 1. April 1924 to date Chf. Structural Draftsman, Moore Drydock Co., Oakland. TT 2; P 2; RC 2. TT 10.7; SP 5.2; P 5.5; RC 3; D 2.5. Refers to W. H. Alderson, U. G. Brown, E. O. Burgess, I. Gottheim, S. Van Auken, A. J. Werner.

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(3) HOBBS, HAROLD WAYNE, 210 Walnut Pl., Syracuse, N. Y. (Age 24. Born in Graham County, Kans.) 1925 B. S. in Civ. Eng., Univ. of Wyo. TT 2; SP 2. Three summers Inspector, Wyoming State Highway Dept. One summer Instrumentman, U. S. Bureau of Roads, Riverton Project, Wyo. Sept. 1925 to date Instructor in Civ. Eng. and Drawing, L. C. Smith Coll. of Applied Sci., Syracuse (N. Y.) Univ. TT 0.5; P 0.5. TT 2.5; SP 2; P 0.5. Refers to H. D. Comstock, F. C. Emerson, J. C. Fitterer, L. Mitchell, S. D. Sarason.

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(4) HOCH, RALPH WILLIAM, 1421 Arch St., Philadelphia, Pa. (Age 32. Born Reading, Pa.) B. S., Gettysburg (Pa.) Coll. July 1916 to June 1918 Draftsman, County Engr.'s Office, Berks County, Pa., assisted in design and field location of reinforced concrete bridges (30-ft. girder to 100-ft. arch spans). TT 2; SP 2. June to Dec. 1918 Draftsman, Plant Engr.'s office, Remington Arms Co., Eddystone, Pa., on additions and repairs in plant. TT 0.5; SP 0.5. Dec 1918 to date Designer, Eng. Dept., Atlantic Refining Co., Philadelphia, Pa., structural steel and reinforced concrete structures. TT 7.2; SP 0.5; P 6.7; RC 2.5. TT 9.7; SP 3; P 6.7; RC 2.5. Refers to J. E. Boatrite, C. B. Buerger, B. H. Davis, D. L. Diehl, W. Samans.

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(6) HOE, THOROLF FREDERICK, Care, Sanderson & Porter, Cheat Haven, Pa. (Age 26. Born Oslo, Norway.) 1924 Diploma Engr. (Civ.), Norwegian Univ. of Tech., Trondheim. TT 2; SP 2. June to Sept. 1915 Rodman and Chainman, Southern Ry., Norway. TT 0.2; SP 0.2. June to Sept. of years 1916-1918 Rodman and Instrumentman, Dept. for River Regulation and Hydro-Electric Power Plants, Norway. June to Sept. 1919 Chf. of Party, Oslo Municipal Office, hydro electric power plants, planning and locating a hydro-electric power plant. June to Oct. 1922 Storekeeper and Inspector, Great Norwegian Spitzbergen Coal Co., inspection Green Harbor Mines and reconnaissance. TT 0.3; P 0.3; RC 0.3. 1923 to 1924 special studies, Harbor planning and equipment and reinforced concrete. July 1924 to April 1925 Asst. Engr., Dept. of Port, Oslo, design of sheds with inside and outside cranes, planning harbor equipment for loading and unloading. TT 0.7; P 0.7; RC 0.7. June to July 1925 Draftsman, ice plants, Knickerbocker Ice Co., New York City. TT 0.1; SP 0.1. July 1925 to date Draftsman, Sanderson & Porter, Engrs., at Cheat Haven (Pa.) Dam. TT 0.5; SP 0.5. TT 4; SP 2.9; P 1.1; RC 1.1. Refers to A. P. Andersen, R. S. Buck, H. H. Haggard, W. E. Hamilton, F. W. Scheidenhelm.

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(9) HOUSTON, CHARLES WESLEY, 6118 Madison Rd., Cincinnati, Ohio. (Age 24. Born Covington, Ky.) Summer 1922 Rodman, Chainman and Concrete Inspector, U. S. Govt., on Lock of Dam No. 38, Ohio River. March 1923 to April 1924 Rodman, Recorder, Transitman, Computer and Draftsman, U. S. Engrs., Cincinnati, Ohio, preliminary survey, Route No. 3, proposed Lake Erie-Ohio River Canal, occasionally in charge of crew. TT 1.1; SP 1.1. June 1924 to date Rodman, Chainman, Transitman and Draftsman, Mariemont Co., Cincinnati, construction of Mariemont (model town). TT 1.7; SP 1.7. TT 2.8; SP 2.8. Refers to C. I. Grimm, C. W. Kutz, R. L. Langenheilm, C. N. Miller, W. W. Parks.

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(4) JONES, LOUIS RAYMOND, 336 West Mt. Airy Ave., Philadelphia, Pa. (Age 38. Born Phoenixville, Pa.) 1907 Bldg. Constr. (evening course), Drexel Inst., Philadelphia, Pa. 1912 B. S. in C. E., Univ. of Pa. TT 2; SP 2. Feb. 1904 to May 1905, March 1906 to Sept. 1908, July 1912 to Oct. 1913 and Feb. 1920 to Feb. 1923 with McClintic Marshall Co., Pottstown, Pa., estimating weight of fabricated steel from detail drawings, detailing, checking

and in charge of work in Drafting Room, and (July 1912 to Oct. 1913) designing and estimating steel structures, and after Feb. 1920 Engr. of Erection, part of time in field on steel erection and viewing sites for proposed work; designing erection equipment. *TT 3.1: SP 1.3: P 6.8.* June 1905 to Feb. 1906 shop details fabricated steel, Belmont Iron Works, Philadelphia, Pa. *TT 0.8: SP 0.8.* Oct. 1908 to June 1912 student, Univ. of Pennsylvania. March 1917 to Aug. 1919 with 103d Eng. Regt., 28th Div., U. S. Army, finally as 1st Lieut., Engrs. *TT 2.5: SP 1.5: P 1.* Sept. 1919 to Jan. 1920 with Emergency Fleet Corporation, Philadelphia, appraising property. *TT 0.5: SP 0.5.* March to Sept. 1923 design and detail of industrial buildings, The Austin Co., Philadelphia. *TT 0.6: P 0.6.* Oct. 1923 to Feb. 1925 Engr. and Estimator for T. A. Stoutenburgh, Philadelphia, Gen. Contr., design and cost estimates on building work. *TT 1.5: P 1.5: RC 1.5: D 1.5.* Nov. 1913 to Feb. 1917 and March 1925 to date Draftsman and Asst. Engr., Dept. of City Transit, Philadelphia, design of subway and elevated railroad structures; at present Asst. Engr. *TT 4: P 4. TT 20: SP 6.1: P 13.9: RC 1.5: D 1.5.* Refers to D. S. Gendell, Jr., J. J. L. Houston, J. W. Jones, A. McKinley, H. H. Quimby, C. H. Stevens.

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(1) KELLY, PAUL AUGUSTINE, 278 Warburton Ave., Yonkers, N. Y. (Age 32. Born Bellows Falls, Vt.) 1918 B. S. in C. E., Catholic Univ., Washington, D. C. *TT 2: SP 2.* Aug. 1918 to Feb. 1919 Chf. of Party, U. S. Naval Reserve Force, on hydrographic survey, making river surveys, estimating excavations and sewer and water surveys. *TT 0.5: P 0.5.* Sept. to Dec. 1919 Engr. of Lines and Grades, Turner Constr. Co., general engineering on erection of reinforced concrete factory building. *TT 0.2: P 0.2.* Dec. 1919 to March 1921 Highway Engr., Dept. of Public Works, Dominican Republic, West Indies, location and construction of macadam roads, bridges and culverts; in charge of 22 km. of road construction. *TT 1.2: P 1.2: RC 1.2.* March 1921 to March 1922 Mathematical Computer, Ordnance Dept., U. S. Army, at Aberdeen Proving Grounds, Md., preparing range tables for artillery. March 1922 to July 1923 Senior Civ. Engr., Interstate Commerce Comm., valuation and appraisal of railroads, compiled valuation data, checked valuation notes and attended valuation conferences with railroad representatives. *TT 1.4: P 1.4: RC 1.4.* July to Sept. 1923 Structural Steel Designer with Henry Howland, Cons. Engr., on school and apartment houses. *TT 0.2: P 0.2: RC 0.2.* Sept. 1923 to date Engr. Draftsman, New York Central R. R., making plans and estimates for buildings erected in Terminal Zone, reinforced concrete and masonry design. *TT 2.5: P 2.5. TT 8.1: SP 2: P 6.1: RC 2.8.* Refers to J. H. Caton, 3d, H. Latimer, J. Lucey, J. D. Moore, G. S. Rinehart.

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(3) LARKIN, LAWRENCE PRESSNEY, P. O. Box 22, Tuxedo Park, N. Y. (Age 24. Born Ellsworth, Kans.) 1920 to 1923 (2 years) student in Civ. Eng., Kansas State Agricultural Coll. *TT 0.7: SP 0.7.* May 1923 to March 1924 Asst. to S. A. Sulentic, Cons. Engr., Ellsworth, Kans., surveying, drafting and inspection on water-works and sewers, etc. *TT 0.8: SP 0.8.* May to Sept. 1924 Jun. Asst. Engr., Board of Transportation, New York City. *TT 0.3: SP 0.3.* Sept. 1924 to date Jun. Asst. Engr., New York State Bureau of Highways. *TT 1.4: SP 1.4. TT 3.2: SP 3.2.* Refers to G. L. Campbell, L. E. Conrad, F. F. Frazier, M. W. Furr, J. A. Ruddy.

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(11) LEFEBVRE, WILLIAM CLAYTON, Arizona Highway Dept., Phoenix, Ariz. (Age 36. Born Ashland, Va.) Sept. 1907 to Aug. 1908 Chainman and Rodman, Georgia & Florida R. R. *TT 0.8: SP 0.8.* Aug. 1908 to Nov. 1911 Rodman, Leveler and Transitman, Southern Pacific R. R. Co. *TT 3.2: SP 2.5: P 0.7.* Nov. 1911 to July 1912 Chf. of Party, Tucson Farms Co., land surveys and laying out irrigation project. *TT 0.7: P 0.7: RC 0.7.* July 1912-Dec. 1920 City Engr., Tucson, in charge of city improvements, design of water-works, pavements, bridges, culverts and subway. *TT 8.5: P 8.5: RC 6.5: D 6.5.* Jan. 1921 to Feb. 1923 County Engr., Pima County, Ariz., maintenance and construction of highways and bridges. *TT 2.1: P 2.1: RC 2.1: D 2.1.* Feb. 1923 to April 1924 Engr., State Land Dept. and State Water Dept., Arizona, land surveys and check of design on dams and irrigation projects. *TT 1.2: P 1.2: RC 1.2: D 1.2.* April 1924 to date State Engr., Arizona, maintenance and construction of highways and bridges. *TT 1.9: P 1.9: RC 1.9: D 1.9. TT 18.5: SP 3.3: P 15.2: RC 12.4: D 11.8.* Refers to J. W. B. Blackman, F. R. Goodman, G. L. McLane, B. A. McNelly, C. G. Morrison, C. C. Small.

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(9) LEWANDORF, SAMUEL CARLOS, 803 Leader News Bldg., Cleveland, Ohio. (Age 31. Born New York City.) 1920 B. S. in C. E., Univ. of Mich. *TT 2: SP 2.* Jan. 1920 to April 1921 Rodman, Chainman, Instrumentman, Inspector, Draftsman, design with Walter R. Drury, Civ. Engr., Ann Arbor, Mich. *TT 1.3: SP 0.9: P 0.4: D 0.4.* April 1921 to May 1923 Asst. Supt., Water Dept.; Supt., Meter Bureau, Water Dept., Muskegon, Mich. *TT 2.2:*

P 2.2: RC 2.2. June 1923 to May 1925 Concrete Bridge Inspector, pavement design, estimating, cost computation, assessment taxes for special improvements, City of Flint, Mich. **TT 1.8: P 1.8: D 1.6.** May 1925 to date Chf. Engr., National Survey Service, Inc., Cleveland, Ohio. **TT 0.8: P 0.8: RC 0.8.** **TT 8.1: SP 2.9: P 5.2: RC 3: D 2.** Refers to A. J. Decker, W. R. Drury, W. C. Hoad, H. C. McClure, J. R. Pollock.

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(14) LEWIS, FREDERICK NILES, Care, Ozark Eng. Co., Joplin, Mo. (Age 52. Born Macedonia, Iowa.) 1898 B. C. E., Iowa State Coll. of Agri. and Mech. Arts. **TT 2: SP 2.** Dec. 1898 to July 1903 Draftsman for various structural steel companies. **TT 4.6: P 4.6.** July 1903 to Feb. 1904 and Nov. 1904 to June 1907 Squad Boss in Drafting Room, Minneapolis (Minn.) Steel & Machinery Co. **TT 3.2: P 3.2: RC 3.2.** Feb. to June 1904 with C. A. P. Turner, Cons. Engr., Minneapolis, detailing and checking bridge work. **TT 0.3: P 0.3.** June to Nov. 1904 detailing and checking structural work, St. Paul (Minn.) Foundry Co. **TT 0.4: P 0.4.** June 1907 to Jan. 1926 Contr. Engr., Kansas City (Mo.) Structural Steel Co. **TT 18.5: P 18.5: RC 18.5.** Jan. 1926 to date Pres., Ozark Eng. Co., Joplin, Mo. **TT 0.1: P 0.1: RC 0.1.** **TT 29.1: SP 2: P 27.1: RC 21.8.** Refers to H. A. Fitch, N. W. Funk, J. B. Gilman, R. B. Houston, M. S. Ketchum, J. J. McShane, A. Marston, L. D. Ricketts, C. A. P. Turner, J. M. Waller, W. A. Wheeler.

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(6) LONG, HARRY DRIESBACH, 823 Inwood St., Pittsburgh, Pa. (Age 30. Born Williams-ville, N. Y.) 1918 B. C. E., Univ. of Mich. **TT 2: SP 2.** Aug. 1919 to date Time-keeper, under Mgr. of Erection, Pittsburgh Div., Erecting Dept., American Bridge Co., being Engr. on work during erection of important steel structures, bridges and buildings, one-half of time in responsible charge of field measurements; since Feb. 1924 work has included responsible charge of design of falsework and preparation of erection plans for a 6 000-ton single-track railroad bridge over Rigolets (La.) Pass, and 6 000-ton self-anchoring suspension bridge over Allegheny River at Pittsburgh. **TT 6.5: SP 3.5: P 3: RC 2: D 1.** **TT 8.5: SP 5.5: P 3: RC 2: D 1.** Refers to J. L. deVou, C. K. Harvey, F. W. Henricl, R. Khuen, Jr., P. J. Reich.

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(1) LOUISON, BEN HOWE, 6 Tsai Chang Hutung, Peking, China. (Age 23. Born Shanghai, China.) 1924 B. Sc. in C. E., Tangshan Univ., China. **TT 2: SP 2.** July to Oct. 1924 Eng. Asst., Lam, Glines & Co., Tientsin, China, supervising construction of macadam street, casting and laying concrete sewers and building a city bridge. **TT 0.3: P 0.3.** Nov. 1924 to date Jun. Asst. Engr., China International Famine Relief Comm., Peking, China, leveling, river gauging, computations and mapping, also some dike repairing. **TT 1.2: P 1.2.** **TT 3.5: SP 2: P 1.5.** Refers to K. Y. Kwong, O. J. Todd. (Applies in accordance with Sec. 1, Art. I, of the By-Laws.)

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(1) LUKE, FRANCIS WILLIAM, 105 East Twenty-Second St., New York City. (Age 30. Born Wellington, New Zealand.) March-Oct. of years 1920-1922 student in Civ. Eng., Canterbury Eng. Univ., Christchurch, New Zealand. **TT 1: SP 1.** Jan. 1913 to Aug. 1914, and May 1915-April 1916 Eng. Cadet, and Oct. 1919-Feb. 1920, Nov. 1920-Feb. 1921, Nov. 1921-Feb. 1922 and Nov. 1922 to Jan. 1923 Eng. Asst., office and field work, all for City Engr., Wellington, New Zealand. **TT 3.9: SP 2.7: P 1.3: RC 1.3: D 1.** Aug. 1914 to May 1915 and May 1916-Sept. 1919 active service, New Zealand Expeditionary Force, after May 1916 with Engrs., on field engineering, survey, explosives, earthworks, bridges, drainage, etc. **TT 3.3: SP 3.3.** April 1923-Oct. 1924 Eng. Asst., Dorman Long & Co., London, England. **TT 1.6: P 1.6: RC 1: D 1.6.** March 1925 to Feb. 1926 Eng. Asst., Sir Douglas Fox & Partners, London, England, on bridge design, Sydney Harbor Bridge. **TT 1: P 1: RC 0.5: D 1.** **TT 10.9: SP 7: P 3.9: RC 2.8: D 3.6.** Refers to W. A. Fisher, R. Freeman, J. E. Fulton, G. A. Lee, J. A. McDonald.

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(7) MCCREE, ANDREW AMOS, 315 Hackney Bldg., St. Paul, Minn. (Age 42. Born Edinburgh, Scotland.) 1908 C. E., Univ. of Minn. **TT 2: SP 2.** Sept. 1901 to Sept. 1903 Rodman and Transitman, Northern Pacific Ry. Co. **TT 2: SP 2.** 1903 to 1908 (spare time and summers) Instrumentman, Twin City Rapid Transit Co. Oct. to Dec. 1908 Supt. of track construction, Kettle River Quarries Co., Calgary, Alberta. **TT 0.2: P 0.2: RC 0.2.** Jan. to April 1909 Inspector on bridge work, Great Northern Ry. **TT 0.2: SP 0.2.** April 1909 to April 1910 Res. Engr., Jan. to March 1911 Draftsman, March 1911 to Sept. 1915 Asst. Engr. in charge of construction, and Sept. 1915 to April 1917 Roadmaster, Tacoma Div., N. P. Ry. Co. **TT 7.2: SP 0.2: P 7: RC 7.** April 1910 to Oct. 1911 Asst. Engr., Twin City Rapid Transit Co. **TT 1.5: P 1.5: RC 1.5.** April 1917 to Aug. 1918 Supt. on cantonment construction, Grant Smith & Co. **TT 1.3: P 1.3: RC 1.3.** Aug. 1918 to April

1919 Works Supt., U. S. Housing Corporation, at Bremerton, Wash. TT 0.7: P 0.7: RC 0.7. April 1919 to May 1922 Vice-Pres., McCree, Moos & Co., and May 1922 to date member of firm, McCree & Co., Contrs. and Engrs. TT 5.8: P 5.8: RC 5.8. TT 21: SP 4.5: P 16.5: RC 16.5. Refers to B. Blum, M. F. Clements, D. A. Daly, H. E. Stevens, G. L. Wilson, L. Yager.

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(1) McMASTER, ALFRED DENNIS, 39 Bentley Ave., Jersey City, N. J. (Age 22. Born Jersey City, N. J.) Land Surveyor, State of New Jersey. 1921 to 1923 student, Princeton Univ. TT 0.7: SP 0.7. Sept. 1923 to Sept. 1924 with Public Service Production Co. first as Rodman, then Jun. Engr. on plant layout and similar survey work on Kearny (N. J.) super-power station. TT 1: SP 1. Sept. 1924 to date with New Jersey State Highway Comm. as Jun. Engr. on surveys and construction, Route No. 1 extension. TT 1.5: SP 1.5. TT 3.2: SP 3.2. Refers to R. M. Beck, H. R. Gabriel, H. A. Kelly, F. Lavis, W. H. Reilly, L. R. Shellenberger.

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(13) MANETTA, WILLIAM JOSEPH, 922 Ventura Ave., Berkeley, Cal. (Age 27. Born San Francisco, Cal.) 1920 B. S., Coll. of Civ. Eng., Univ. of Cal. TT 2: SP 2. May to Oct. 1920 Hydrographer and Instrumentman, Sutter Butte Canal Co., on operation and maintenance of irrigation canal system. TT 0.5: SP 0.5. Oct 1920 to April 1921 Draftsman and Detailer, Madera Irrigation Dist., detailing irrigation structures, assisting on design of reinforced concrete and timber structures, etc. TT 0.5: SP 0.5. April to Aug. 1921 Asst. Field Engr., California Div. of Water Rights, survey of distribution of water in San Joaquin Valley, involving seepage and duty of water measurements and establishing and maintaining stream-gauging stations. TT 0.3: SP 0.3. Aug. 1921 to July 1922 Draftsman, California Div. of Irrigation and Eng., collecting and working up data for water resources report. TT 1: SP 1. July 1922 to July 1923, Draftsman, Transitman and Acting Chf. of Party with C. A. Tusch, Berkeley, Cal., valuation and design of repairs and replacements for canal system; on survey of five reservoirs and 8 miles of canal and tunnel location. TT 1: SP 0.5: P 0.5: RC 0.4: D 0.1. July 1923 to date Draftsman and Structural Designer, East Bay Water Co., Oakland, Cal., first year on office work in connection with study of underground waters, including some independent studies on tidal effects, current meter rating, etc., and 1½ years on structural design of new Upper San Leandro Filter Plant (12 000 000 gal., to cost about \$500 000), and kept in touch with all phases of design and construction. TT 2.5: SP 1: P 1.5: RC 1.5: D 1.5. TT 7.8: SP 5.3: P 2: RC 1.9: D 1.1. Refers to B. A. Etcheverry, S. T. Harding, G. W. Hawley, E. Hyatt, Jr., C. G. Hyde, T. H. Means.

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(1) MARSH, ROBERT MALCOLM, 739 Fairacres Ave., Westfield, N. J. (Age 36. Born Brooklyn, N. Y.) Jan. 1908 to Dec. 1909 Rodman and Asst. Surveyor, Town of Westfield, N. J. TT 1.9: SP 1.9. Dec. 1909 to June 1919 Rodman, Levelman and Transitman, Eng. Dept., Central R. R. of New Jersey, construction, surveys and plans, from 1917 to 1919 in charge of layouts, inspection and calculations on grade-crossing elimination, Westfield N. J. TT 9.5: SP 5.5: P 4: RC 2. June to Oct. 1919 on construction plans, etc., City of Plainfield, N. J. TT 0.3: P 0.3. Oct. 1919 to June 1920 in private practice as Surveyor and Engr., surveys, maps, etc. TT 0.7: P 0.7. June to Oct. 1920 on harbor development, soundings, calculations, etc., Eng. Dept., Lehigh Valley R. R. Co. TT 0.3: P 0.3. Oct. 1920 to date Supt., Weldon Contr. & Eng. Co., construction, in charge of surveys, computations, etc., since 1921 in charge of calculations on bids and supervising construction on various bridge and road contracts, and preparing plans for trestles, yards, etc. TT 5.4: P 5.4: RC 5. TT 18.2: SP 7.4: P 10.7: RC 7. Refers to T. C. Fischer, W. E. Johnson, H. E. Van Ness, A. W. Vars, J. L. Vogel, A. M. Zabriskie.

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(14) MILLER, CECIL DURWARD, 701 Mutual Bldg., Kansas City, Mo. (Age 26. Born Kansas City, Mo.) Jan. 1918 to Sept. 1919 Rodman and Instrumentman, Kansas City (Mo.) Stock Yards Co. TT 1.7: SP 1.7. Oct. 1919 to Sept. 1920 Inspector, Harrington, Howard & Ash, inspection and supervision of work on 23d St. Viaduct, Kansas City, Mo., reinforced concrete construction. TT 0.9: SP 0.9. Nov. 1920 to Sept. 1921 Rodman, Union Pacific R. R. Co. TT 0.8: SP 0.8. Sept. 1921 to date with Black & Veatch as follows: Sept. 1921 to June 1922 and Sept. 1922 to June 1923 Draftsman with Black & Veatch (afternoons) and student, Kansas City Junior Coll. (mornings). June to Sept. 1922 field surveys and drafting, sewer system, Tonganoxie, Kans.; June to Sept. 1923 Res. Engr., water-supply project, Woodward, Okla., wells and reservoir construction; Sept. to Dec. 1923 Asst. Res. Engr., brick-paving construction, Holton, Kans.; Dec. 1923 to April 1924 field surveys and drafting, Mildred, Kans., water supply, Cameron, Mo., sewer system; May to

July 1924 Res. Engr., Garnett, Kans., brick-paving construction; July to Sept. 1924 Asst. Res. Engr., Hiawatha, Kans., asphaltic concrete paving construction; Sept. to Dec. 1924 Res. Engr., Sebetha, Kans., brick-paving construction; Dec. 1924 to Feb. 1925 field surveys and drafting, Enid, Okla., and Savannah, Mo., water supply; Feb. to May 1925 Asst. Res. Engr., Mayfield, Ky., sewer construction; May to July 1925 field survey and drafting, Mayfield, paving; July to Sept. 1925 Res. Engr., Billings, Okla., water supply, concrete curb well; since Sept. 1925 Res. Engr., Kansas City, Mo., Blue River sewer project, Secs. D and E, reinforced concrete sewer (48-in. monolithic pipe to 8-ft. 6-in. arch section). TT 4: SP 1: P 3: RC 2.3. TT 7.4: SP 4.4: P 3: RC 2.3. Refers to L. R. Ash, E. B. Black, J. F. Brown, E. H. Dunmire, L. B. Roberts, E. M. Stayton, N. T. Veatch, Jr.

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(1) MOLNAR, TIBOR, P. O. Box 63, Trinity Station, New York City. (Age 27. Born Budapest, Hungary.) 1922 C. E., Tech. Univ. (Technische Hochschule), Berlin, Germany. TT 2: SP 2. Sept. 1921 to May 1922 Asst. in field work, design and erection, Univ. of Berlin. TT 0.7: P 0.7. June 1922 to Jan. 1923 with Gustav Lindenthal, on bridge design, detailing and computing. TT 0.7: P 0.7. Jan. to Sept. 1923 detailing and shop work, Penn. Bridge Co., Beaver Falls, Pa. TT 0.7: SP 0.7. Oct. 1923 to Jan. 1925 with New York Central R. R., New York City, on steel design, detailing and checking. TT 1.2: P 1.2. Jan. to Nov. 1925 with Brooklyn (N. Y.) Edison Co., as Asst. to Engr. in charge of steelwork, steel design and checking. TT 0.9: P 0.9. Nov. 1925 to date Squad Boss, Willputte Coke Oven Co., New York City. TT 0.4: P 0.4: RC 0.4. TT 6.7: SP 2.7: P 4: RC 0.4. Refers to O. H. Ammann, C. Herschel, G. W. Kittredge, G. Lindenthal, R. Ridgway.

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(10) MONEY, JOHN MARSHALL, Care, Hardaway Contr. Co., Bainbridge, Ga. (Age 25. Born Carrollton, Miss.) Jan. 1919 to June 1921 student, School of Eng., Univ. of Virginia. TT 1: SP 1. March 1917-May 1918 Timekeeper and Cost Clerk, Hardaway Contr. Co., on hydro-electric developments. TT 1.2: SP 1.2. June-Aug. 1918 Cost Clerk, U. S. Navy, Portsmouth, Va. Sept.-Dec. 1918 with U. S. Army. July to Sept. 1919 and June to Sept. 1921 Engr. and Cost Clerk for Tucker & Laxton, Charlotte, N. C., building water-works and sewerage system for Benson, N. C. (1919) and installing water-works system for White Oak Mills at Greensboro, N. C. (1921). TT 0.6: SP 0.6. Oct. 1921-Dec. 1923 with Hardaway Contr. Co., Columbus, Ga., as follows: Oct. 1921-Feb. 1922 Asst. Engr., and March 1922-Feb. 1923 Engr., on preliminary surveys for hydro-electric developments on Choctawhatchie and Pea Rivers, Geneva, Ala., and Chipola River, Altha, Fla.; March-Aug. 1923 Engr. and Cost Clerk building reinforced concrete arch bridge for North Carolina State Highway Dept. over Yadkin River at Salisbury, N. C.; Sept.-Dec. 1923 Res. Engr. building lock and dam for U. S. Govt. on Oklawaha (Fla.) River. TT 2.2: SP 1.2: P 1: RC 1. Jan.-Aug. 1924 Res. Engr. on dam and power house for Whitewater Power Co. on Whitewater River, Montezuma, Ga. TT 0.7: P 0.7: RC 0.7. Sept. 1924 to date with Hardaway Contr. Co. as Res. Engr., building reinforced concrete arch bridge over Flint River at Bainbridge for Georgia State Highway Dept., also Office Engr. on various other contracts. TT 1.5: P 1.5: RC 1.5. TT 7.2: SP 4: P 3.2: RC 3.2. Refers to B. H. Hardaway, B. H. Hardaway, Jr., S. T. Jones, Jr., C. A. Mees, G. L. Moulton, E. L. Scruggs, S. B. Slack.

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(10) MOORE, THOMAS VINCENT, Apartment No. 4, Lantern Lane, St. Petersburg, Fla. (Age 28. Born Baltimore, Md.) Licensed Civ. Engr., State of South Carolina. Jan. 1917 to Aug. 1918 Rodman, Transitman and Inspector, Baltimore & Ohio R. Co. TT 1.7: SP 1.7. Feb. to Aug. 1919 Engr. and Clerk, Empire Eng. Co. of Baltimore, on trackwork for Bethlehem Steel Co. at Sparrows Point, Md. TT 0.6: SP 0.6. Sept. 1919 to Jan. 1921 and Sept. 1921 to March 1922 with Raymond Concrete Pile Co. of New York, first as Instrumentman, then Field Engr. on construction of shipways, craneways, dry-dock moorings, electric conduits, air lines, etc., at Sparrows Point, lighthouse on Rappahannock River, Sharps, Va., building foundations at Baltimore and (after Sept. 1921) quay-wall at Norfolk Navy Yard, Portsmouth, Va. TT 2: SP 0.3: P 1.7. March 1922 to Oct. 1923 Field Engr., Rollin Constr. Corporation, New York City, on construction of 5-mile causeway through Santee Swamps, S. C., including seven concrete bridges, exclusive of main-draw span over Santee River. TT 1.7: P 1.7. Nov. 1923 to date with Raymond Concrete Pile Co. as Asst. Supt., on building foundation, Brooklyn, N. Y., Supt., building foundation, Bronx, N. Y., Field Engr. and Asst. Supt., steel-mill foundations, Ford Rouge Plant, Detroit, Mich., and Supt., dock construction, Humble Oil Co., Baytown, Tex., and pier and dock construction, City of St. Petersburg, Fla. TT 2.3: P 2.3: RC 1.3. TT 8.3: SP 2.6: P 5.7: RC 1.8. Refers to J. J. Collins, R. W. Gaylord, H. P. Hamlin, E. Kitchen, E. Klapp, R. A. McMenimen, W. V. McMenimen, H. A. Mohr, A. B. Overland, J. L. Parker, J. W. Taussig, M. M. Upson.

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(7) **MORRILL, ARTHUR BRADFORD**, Waterworks Park, Detroit, Mich. (Age 38. Born Haverhill, Mass.) 1909 B. S., Mass. Inst. Tech. TT 2: SP 2. July to Sept. 1907 Rodman, The Scofield Co., Contrs. Aug. 1909 to May 1911 Computer, Sewage Testing Station, San. Dist. of Chicago, keeping records of experimental work in sewage treatment. TT 1.8: SP 1.8. July 1911 to July 1914 Prof. of San. Eng., Pei Yang Govt. Univ., Tientsin, China. TT 3: P 3: RC 3. June to Dec. 1915 Chemist-Bacteriologist, Sewage Disposal Plant, Baltimore Sewerage Comm., in charge of laboratory controlling plant operation and conducting investigations of new disposal processes. TT 0.5: P 0.5: RC 0.5. June 1916 to July 1919 Asst. Engr. and later Senior Asst. Engr. with Morris Knowles, Inc., Engrs., Pittsburgh, design of sewers, interceptors and sewage disposal plants, field investigations and reports, construction of Camp McClellan water supply. TT 3.1: P 3.1: RC 1.6: D 2.3. July 1919 to March 1921 Asst. Engr., San. Dist. of Chicago, on design of reinforced concrete of Des Plaines River Sewage Treatment Plant. TT 1.6: P 1.6: RC 1.6: D 1.6. March 1921 to March 1925 Prin. Asst. Engr., San. Dist. of Indianapolis, in responsible charge of structural design and drafting plans for city's activated sludge plant and new intercepting sewers. TT 4: P 4: RC 4: D 4. March 1925 to Jan. 1926 Asst. Engr., Filtration, Dept. of Water Supply, Detroit, in responsible charge of design and construction of water-filtration plant (240 000 000 gal. daily), filtered water reservoirs, etc.; at present with Div. of Eng., Detroit. TT 0.8: P 0.8: RC 0.8: D 0.8. TT 16.8: SP 3.8: P 13: RC 11.5: D 8.7. Refers to L. B. Barker, O. L. Eltinge, G. H. Fenkell, C. H. Hurd, M. Knowles, L. Pearse, G. J. Requardt, H. S. Ripley, M. R. Scharff, F. H. Stephenson, L. C. Whittemore.

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(13) **MUNSON, LAURA AUSTIN**, 710 Thirty-First St., Sacramento, Cal. (Age 23. Born Fresno, Cal.) 1923 A. B., Stanford Univ. TT 2: SP 2. June to Oct. 1923 Draftsman with County Surveyor, Fresno, Cal. TT 0.3: SP 0.3. Oct. 1923 to June 1924 graduate work in water supply and sanitary engineering, Stanford Univ. TT 0.8: P 0.8. Aug. to Sept. 1924 Draftsman with Charles H. Lee, Cons. Engr., San Francisco, Cal. TT 0.1: SP 0.1. Sept. to Nov. 1924 Asst. to Secy., San Francisco Chapter, A. A. E. TT 0.2: SP 0.2. Nov. 1924 to date with Div. of Eng. and Irrigation, until March 1925 and since Aug. 1925 as Jun. Hydr. Engr., Grade III, office work in connection with water resources investigation for State of California, remainder of time assisting on stream measurements, etc. TT 1.2: SP 0.4: P 0.8. TT 4.6: SP 3: P 1.6. Refers to P. F. Jones, C. D. Marx, L. B. Reynolds, H. M. Stafford, W. E. Stoddard.

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(7) **NELSON, DONALD ORELUP**, 202 Main Eng. Bldg., Univ. of Minnesota, Minneapolis, Minn. (Age 27. Born Excelsior, Minn.) Registered Prof. Engr., State of Ore. 1920 B. S. in Civ. Eng., Univ. of Minn. TT 2: SP 2. Nov. 1918 to Feb. 1919 at Coast Artillery School, Ft. Monroe, Va.; 2d Lieut., C. A. Reserves, assigned as Orientation Officer; at present assigned to 529th C. A. (anti-aircraft). Dec. 1921 to July 1922 Draftsman, Portland Elec. Power Co., preparing plans for power substations. TT 0.6: SP 0.6. July 1922 to Sept. 1925 Engr., Truscon Steel Co., Portland (Ore.) office, 1 year as Estimator and Detailer, 1½ years First Asst. to Dist. Engr., and 8 months Dist. Engr., designing, detailing and estimating reinforced concrete, responsible for estimates and design. TT 3.2: P 3.2: RC 2.2. Sept. 1925 to date Research Fellow, Univ. of Minnesota, teaching in structures, research work in concrete, graduate study in structures and concrete. TT 0.4: P 0.4. TT 6.2: SP 2.6: P 3.6: RC 2.2. Refers to F. Bass, H. F. Blood, A. S. Cutler, O. M. Leland, G. C. Staehle.

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(10) **NIX, GEDDINGS WOOD**, 21 Knight & Wall Bldg., Tampa, Fla. (Age 33. Born Cherokee County, Ga.) 1908 to date with Gude & Co.; since 1916 as Junior Partner, having complete charge of all building operations, consisting of hotels, apartments, banks, office buildings, hospitals, theatres, garages, schools, etc. (\$12 000 000 to \$15 000 000). TT 18: SP 4: P 14: RC 14. Refers to W. A. Alchel, R. P. Black, R. S. Flske, A. V. Gude, V. H. Kreigshaber, R. G. Lose, C. F. McKenzie, R. M. Pardee, G. R. Solomon, H. A. Spies, W. C. Spiker, J. G. Wilburn.

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(13) **NOTEWARE, HAROLD DOUGLASS**, 1635 North Commerce St., Stockton, Cal. (Age 32. Born Carson City, Nev.) 1912 C. E., A. Van der Nallen School of Eng. TT 2: SP 2. Jan. to Sept. 1913 Instrumentman and Draftsman, David Jacks Corporation, Monterey, Cal., layout of irrigation systems, pipe lines, supervision of grading, etc., and tracings and rough drawings of pipe lines, buildings and irrigation structures. TT 0.7: SP 0.7. Sept. 1913 to Jan. 1917 and Feb. 1924 to Dec. 1925 with Spreckles (Cal.) Sugar Co., until May 1915 as Asst. Civ. Engr. on irrigation development in Salinas Valley (about 9 000 acres, approx. \$1 250 000), Engr. in charge of field operations, Supt. of construction and grading operations

and Designer of minor works and structures; May 1915 to Jan. 1917 Asst. to Civ. Engr. on design and construction of buildings, industrial and pumping plants, water-works, and general industrial engineering; Feb. 1924 to Dec. 1925 Civ. Engr. on investigations, designs, construction and operation of various plants for handling and transporting sugar beets, including design and construction of plant (200 tons per hour) for transferring beets from barges to cars, layout and operation of water transportation systems, etc. *TT 5.2: SP 0.7: P 4.6: RC 2.6: D 2.* Jan. 1917 to Nov. 1921 Res. Engr. in charge (under Civ. Engr.) of Eng. Depts., Spreckels Sugar Co., Pajaro Valley Cons. R. R. Co., and Monterey County Water Co., design and construction of industrial buildings, plants, water-works, bridges, irrigation systems and sub-surface pumping plants, operation and maintenance of railroads, plants and water systems, general administration, reports, etc. (construction approx. \$300 000 annually). *TT 4.9: P 4.9: RC 3: D 1.9.* Nov. 1921 to Feb. 1924 Cons. Engr., industrial engineering, business administration, reports, etc. *TT 2.2: P 2.2: RC 2.2.* Dec. 1925 to date Gen. Cons. Civ. Engr. *TT 0.2: P 0.2: RC 0.2.* *TT 15.2: SP 3.3: P 11.9: RC 8: D 3.9.* Refers to E. O. Billwiller, J. C. Foss, B. C. Gerwick, W. Meredith, A. W. Ploda, W. H. Popert, C. L. Rakestraw.

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(9) O'BRIEN, MORROUGH PARKER, 412 South 9th St., Lafayette, Ind. (Age 23. Born Hammond, Ind.) 1925 B. S. Mass. Inst. Tech. *TT 2: SP 2.* June to Sept. 1925 Jun. Engr., Hudson River Regulating Dist., Albany, N. Y., in charge of highway location party. *TT 0.3: P 0.3.* Sept. 1925 to date Asst. in Civ. Eng., Purdue Univ., Lafayette, Ind., one-half of time graduate student in water power and hydraulics. *TT 0.5: P 0.5.* *TT 2.8: SP 2: P 0.8.* Refers to H. K. Barrows, W. K. Hatt, E. H. Sargent, C. O. Shively, C. M. Spofford, R. B. Wiley.

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(7) ORTON, JAMES WILBUR, 485 Manistique Ave., Detroit, Mich. (Age 33. Born Chicago, Ill.) 1917 B. S. in C. E., Univ. of Kans. *TT 2: SP 2.* June 1911 to Sept. 1912 and June 1913 to Feb. 1914, June to Sept. 1914 and June to Aug. 1915 with Burns & McDonnell, Kansas City, Mo., as Rodman, Chainman, Instrumentman, Tracer and Detailer on municipal improvement projects. Aug. 1915 to Sept. 1916 and June to Sept. 1917 Topographic Draftsman, Engrs. Office, War Dept., Ft. Sam Houston, Tex., mapping Mexican Border. *TT 3.1: SP 3.1.* Sept. 1917 to June 1918 Chf. Draftsman, Engrs. Office, War Dept., Boston, Mass., in charge of mapping and on design of Varmy tank. *TT 0.8: P 0.8: RC 0.4: D 0.4.* June to Nov. 1918 U. S. Naval Aviation Cadet at Massachusetts Inst. of Technology and at Miami, Fla. Dec. 1918 to Feb. 1921 with Burns & McDonnell, and Feb. 1921 to March 1925 with Black & Veatch, Kansas City, as Draftsman and Field Engr. on preliminary investigations, computations and estimates for municipal improvement projects; also acted as Res. Engr. for Burns & McDonnell. *TT 6.3: P 6.3: RC 2: D 0.8.* March 1925 to date with Board of Water Supply, Detroit, Mich., as Designing Engr., filters, and on experimental investigations in water purification and design of hydraulic structures. *TT 1: P 1: RC 0.5: D 0.5.* *TT 13.2: SP 5.1: P 8.1: RC 2.9: D 1.7.* Refers to E. B. Black, G. H. Fenkell, R. E. McDonnell, H. A. Rice, F. H. Stephenson, C. C. Williams.

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(11) PARK, JOHN CHARLES, Jordan Apts., Pueblo, Colo. (Age 34. Born Greeley, Colo.) 1916 B. S. C. E., Univ. of Colo. *TT 2: SP 2.* July 1916 to Feb. 1918 Draftsman, American Bridge Co., Gary, Ind., most of time on shop details of bridges and buildings, also in Template Shop, Inspection Dept. and on construction of gun plant. *TT 1.3: SP 1.3.* March to June 1917 also Efficiency Engr., Illinois Steel Co., Gary, Ind. *TT 0.2: SP 0.2.* Feb. to Nov. 1918 Draftsman, Denver (Colo.) Steel & Iron Works, in charge of drafting room, making shop details, estimating, stock records and shop inspection. *TT 0.7: P 0.7: RC 0.7: D 0.7.* Nov. 1918 to Dec. 1919 Designer, H. Koppers Co., Pittsburgh, Pa., coke and by-products plants. *TT 1.1: P 1.1: D 1.1.* Dec. 1919 to March 1920 Asst. Engr., Missouri, Kansas & Texas R. R., Parsons, Kans., Interstate Commerce Comm. valuation of bridges and buildings on St. Louis and Kansas City Divs. *TT 0.2: P 0.2.* March 1920 to Feb. 1921 Engr., American Smelting & Refining Co., checking shop details, designing electrical, steam and water layouts for, and supervising construction of, new buildings, design of power plant and blast furnaces. *TT 1: P 1: RC 0.5: D 0.7.* Feb. to May 1921 Engr., Midwest Steel & Iron Works Co., design of steelwork for, and checking shop details of, church and school buildings. *TT 0.2: P 0.2: D 0.1.* June to Oct. 1921 Engr., Gen. Chemical Co., design of buildings, detailing and checking shop details. *TT 0.3: P 0.3: D 0.2.* Oct. 1921 to date (except June to Sept. 1924 Engr. with John E. Field on design and supervision of collapsible dam) with Herbert S. Crocker, Cons. Engr., Denver, until June 1924 as Engr. on design and Supt. on erection of foundations and girders of railroad bridge, design of viaduct, design of forms and in charge of building same; Supt. on erection of

snowsheds and mill buildings; since Sept. 1924 Res. Engr. on bridges, viaducts and sub-way for Pueblo (Colo.) Conservancy Dist. TT 4.5: P 4.5: RC 3.1: D 2.6 TT 11.5: SP 3.5: P 8: RC 4.3: D 5.4. Refers to J. W. Cerny, I. C. Crawford, H. S. Crocker, F. W. Dencer, M. S. Ketchum, A. O. Ridgway.

(15) PETERSEN, GEORGE WALTER, 5355 Goodwin Ave., Dallas, Tex. (Age 26. Born Omaha, Nebr.) 1921 B. S. in Civ. Eng., Armour Inst. Tech. TT 2: SP 2. June to Sept. 1919 Chairman, City of Omaha, Nebr. June to Sept. 1920 and June 1921 to Jan. 1922 Draftsman, Paxton & Vierling Iron Works, Omaha, detailing and estimating structural steel buildings and bridges. TT 0.5: SP 0.3: P 0.2: D 0.2. Jan. 1922 to date with Concrete Eng. Co. as follows: Jan. to July 1922 Draftsman at Omaha, Nebr., detailing, estimating and designing reinforced concrete buildings; July 1922 to Jan. 1925 Asst. Mgr. at Dallas, Tex., in charge of all designing, estimating and drafting, reinforced concrete structures; Jan. 1925 to Jan. 1926 Mgr. at Houston, Tex., in complete charge of office estimating, designing and redesigning, reinforced concrete structures; since Jan. 1926 Dist. Mgr. at Dallas, in complete charge of office, designing and estimating reinforced concrete structures. TT 4.2: SP 0.5: P 3.7: RC 3.7: D 2.3. TT 6.7: SP 2.8: P 3.9: RC 3.7: D 3.1. Refers to J. H. Bringham, E. A. Fretz, R. O. Jameson, H. D. Jolley, C. L. Meyer, J. L. O'Hearn, N. Wohlfeld.

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(1) POLING, GUY S, 1745 Caton Ave., Brooklyn, N. Y. (Age 37. Born Brooklyn, N. Y.) Licensed Prof. Engr. (Civ.), New York State. July 1904 to June 1907 Rodman and Instrumentman, and Oct. 1908 to Nov. 1910 Chf. of Party on Surveys, Lawyers Title & Trust Co., New York City. TT 3.1: SP 1: P 2.1: RC 2.1. July 1907 to Sept. 1908 Rodman and Inspector, Hudson and Manhattan Tunnels, New York City. TT 1.2: SP 1.2. Jan. to June 1911 Rodman and Instrumentman, Santa Fe R. R. TT 0.5: SP 0.5. July 1911 to Jan. 1912 Asst. Supt., construction, Los Angeles Aqueduct, Narka Div., Cal. TT 0.5: P 0.5: RC 0.5. Jan. to Dec. 1912 Asst. Engr., Angelus Mesa Development Co., Los Angeles, Cal., subdivision, topographical surveys, road construction, water and sewer lines. TT 1: P 1: RC 1. Jan. 1913 to July 1914 Chf. Engr., Elsinore Development Co., laid out and developed 8000 acres for ranches and townsites; purchased materials for and constructed pumping plants, water and irrigation systems, road and bridges; also as City Engr., Elsinore, Cal., in complete charge, completed construction of sewage-disposal system, laid out and constructed new water lines, streets and bridges. TT 1.5: P 1.5: RC 1.5: D 1.5. Aug. 1914 to April 1917 Constr. Engr., Pacific Oil & Cotton Co., Calexico, Cal., designed, purchased materials for and constructed building for 24 cotton gins, 2 cotton-seed oil mills, storage and warehouse buildings, offices and residences; purchased and installed machinery and equipment; later had charge of maintenance and operation. TT 2.7: P 2.7: RC 2.7: D 2.7. May 1917 to May 1919 Capt., Field Artillery, U. S. Army. TT 2: P 2: RC 2. June 1919 to date Valuation Engr., private practice, New York City; valuation of buildings and machinery for insurance, financial and tax purposes; Bldg. Appraiser with North Eastern Constr. Co. on rate case of gas companies, New York City; Mech. Pricing Engr., New York Edison Rate Case. TT 6.7: P 6.7: RC 6.7. TT 19.2: SP 2.7: P 16.5: RC 16.5: D 4.2. Refers to E. A. Ballou, C. J. Callahan, H. J. Carroll, H. W. Ferris, A. Mazeau, W. C. Rohdenburg, F. X. Scanlan.

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(13) POST, RUDOLPH CHARLES, 75 New Montgomery St., San Francisco, Cal. (Age 33. Born Hamburg, Germany.) Jan. 1922 to date member, Dietrich-Post Co., at present Pres. of company, dealers in engineering supplies and surveying instruments; has been in constant touch with engineers and their problems, assisting in securing efficient help, etc. Refers to L. Aldrich, H. B. Hammill, J. B. Leonard, T. H. Means, G. A. Posey.

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(1) POWELL, LLOYD MALEDON, 80 Malden Lane, New York City. (Age 25. Born Michigan City, Ind.) 1921 B. S. in C. E., Purdue Univ. TT 2: SP 2. June to Sept. 1919 Exploration Engr., State of Minnesota, in charge of small party on preliminary survey for highway. 1921 to 1926 with Chicago Bridge & Iron Works, in drafting room, shop, field and Contr. Dept., last 2 years responsible for contracting business in several states. TT 4.5: SP 1: P 3.5: RC 3. Jan. 1926 to date Mgr., Southeastern Territory, Houghton Eng. Co., Insurance Engrs. and Advisors on fire-protection matters. TT 0.2: P 0.2: RC 0.2. TT 6.7: SP 3: P 3.7: RC 2.2. Refers to G. T. Horton, W. A. Knapp, J. E. O'Leary, J. P. Wells, R. B. Wiley.

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(15) RADY, JOSEPH, Box 743, Amarillo, Tex. (Age 27. Born Rochester, N. Y.) 1921 C. E., Cornell Univ. TT 2: SP 2. June to Oct. 1918 Rodman and Instrumentman with

New York State Engr. on Barge Canal work at Rochester, N. Y. June to Oct. 1919 and July to Dec. 1921 with New York State Highway Dept., first as Instrumentman and Inspector on a 3-mile concrete highway, and after July 1921 Jun. Asst., acting as Asst. Res. Engr. on construction of Fassett Southport Road (7 miles, concrete) with small bridges and culverts, in charge of party staking out road and drainage structures. TT 0.5: P 0.5. Jan. 1922 to date with F. E. Devlin, since Nov. 1924 as member of firm, Devlin Eng. Co., Cons. Engrs., engaged as follows: Jan. to April 1922 Designing Engr., assisted on design of water-purification plant, Marion, Kans., in charge of field party on preliminary survey and design of street paving for Ellinwood and Sedan, Kans.; April to Nov. 1922 Res. Engr. on construction of brick pavement at Kiowa, Kans., staked out work and inspected construction; Nov. 1922 to March 1923 Designing Engr. on water-works and sewerage systems for Hamilton and Cherryvale, Kans. (extensions) and Cherokee, Okla., in charge of field party on preliminary surveys for paving, Wellington, Kans.; March to Oct. 1923 Res. Engr., staked out work and inspected construction of asphaltic concrete pavement; since Oct. 1923 on design and supervision of construction of paving, sewers, water-works, etc. in Texas and New Mexico (\$11 000 to \$960 000, total over \$2 000 000). TT 4.1: P 4.1: RC 1.6: D 0.7. TT 6.6: SP 2: P 4.6: RC 1.6: D 0.7. Refers to F. A. Barnes, F. F. DuBose, H. N. Roberts, Jr., H. A. Sawyer, E. W. Schoder.

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(12) REDMAN, DWIGHT RAYMOND, Wapato, Wash. (Age 41. Born Columbus, Ind.) 1909 B. S., State Coll. of Wash. TT 2: SP 2. 1900 to 1904 Field Asst., and 1904 to 1905 Instrumentman, Head of Field Party, U. S. Indian Service. TT 4: SP 2: P 2. Summers 1905-1908 Instrumentman. June 1909 to Aug. 1910 Asst. Engr., Toppenish, Simcoe & Western Ry. (branch of Northern Pacific Ry.), in charge of location. TT 1.2: P 1.2: RC 1.2. Aug. 1910 to March 1913 in general practice, design and construction of improvements for small cities (total about \$150 000). TT 2.5: P 2.5: RC 0.5: D 2. March 1913 to date with U. S. Indian Service, until June 1918 as Asst. Engr. on field reconnaissance, preliminary surveys, cost estimates and construction of irrigation projects, Colville Reservation (3½ years) and in charge of design, Wapato Project (estimated cost \$8 000 000) (1½ years); since June 1918 Engr. in charge of design and construction of projects on Yakima Indian Reservation (180 000 acres, estimated cost \$8 500 000); also maintenance and operation of irrigation system watering 80 000 acres. TT 13: P 13: RC 11.3: D 1.7. TT 22.7: SP 6: P 16.7: RC 13: D 3.7. Refers to L. M. Holt, L. T. Jessup, J. L. Lytel, T. W. Macartney, W. M. Reed.

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(15) REEDY, MORRIS, Box V, Capital Station, Austin, Tex. (Age 22. Born Oklahoma City, Okla.) 1924 B. S. in C. E., Agri. and Mech. Coll. of Tex. TT 2: SP 2. July to Aug. 1924 Levelman, Texas Power & Light Co. TT 0.1: SP 0.1. Sept. 1924-June 1925 Hydrographer, Texas Board of Water Engrs., and July 1925 to date Jun. Engr., U. S. Geological Survey, Water Resources Branch, on stream measurement and computation of flow records. TT 1.4: P 1.4. TT 3.5: SP 2.1: P 1.4. Refers to B. Bird, C. E. Ellsworth, O. A. Faris, C. E. McCashin, J. T. L. McNew, J. A. Norris, J. J. Richey.

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(5) RIBBLE, JOHN MARSHALL, Care, Robert Martin Co., Salem, Va. (Age 25. Born Culpeper, Va.) 1921 B. S. in C. E., Va. Mil. Inst. TT 2: SP 2. Sept. 1921 to Jan. 1922 with Hummel-Ross Fibre Corporation, Hopewell, Va., on construction of reinforced concrete pulp mill, keeping time, placing steel, pouring concrete, etc. TT 0.5: SP 0.5. Jan. to July 1922 with Virginia State Highway Dept., Bristol and Roanoke, as Instrumentman and after April in charge of location, design and construction of State Aid highways in twelve counties. TT 0.3: P 0.3. July 1922 to March 1923 Jun. Highway Bridge Engr., U. S. Bureau of Public Roads, Ft. Worth, Tex., and Little Rock, Ark., until Dec. 1922 checking designs of bridges for Federal Aid highways and making construction inspections (average ten each month) of Federal Aid and Govt. forest roads and bridges. TT 0.7: P 0.7: RC 0.4: D 0.3. March to Dec. 1923 with Virginia State Highway Dept., Salem, Va., as Chf. of Res. Party, having charge of location, design, staking out and estimates on State Aid highways in four counties; also did field engineering on State and Federal Aid highways and bridges, during construction, part of time Acting Res. Engr. TT 0.3: P 0.3: RC 0.4: D 0.4. Dec. 1923 to date Chf. Engr., Robert Martin Co., and Willey-Ammerman Co., Gen. Contrs., Salem, Va., being Engr. of Constr. on two Federal Aid and two State highway projects (total 20 miles) involving excavation, and including construction of concrete drainage structures, and (on one) laying of bituminous macadam pavement. TT 2.2: P 2.2: RC 2.8. TT 6.5: SP 2.5: P 4: RC 3: D 0.7. Refers to H. T. Ammerman, J. A. Anderson, T. Ellett, A. R. Loah, W. W. McClevy, E. P. Shuman.

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(1) **ROBBA, WILLIAM HUGH FRANK**, Care Ulen & Co., Bogota, Colombia. (Age 37. Born Trieste, Austria-Hungary.) K. K. Staats Realschule, Trieste, Austria-Hungary. Glasgow Univ., Scotland. 1909 to 1912 Apprentice, Alex. Stephens & Sons, Ltd., Glasgow, Scotland, boiler, engine and pattern shop, shipyard and dockyard engineering, etc. *TT 2.2: SP 2.2.* 1912 to 1913 Draftsman, Smiths Dock Co., Middlesborough, Yorks, England, on layout and design of oil carriers, etc. *TT 0.7: SP 0.3: P 0.4: D 0.5.* 1913 to 1914 Naval Archt., Barclay, Curle & Co., Ltd., Whiteinch, Glasgow, cost and estimating and naval architectural work for liners above 10 000 tons deadweight. *TT 0.7: P 0.7: D 0.5.* 1914 to 1919 member of firm, Wm. Fr. Robba & Co., marine and civil engineering; consulting engineering, contracting, shipbroking and insurance, battleship design, naval tugboat design (Portuguese Colonial Govt.), surveying: 1919 to 1920 (9 months) Chf. of Tech. Dept., V. A. Amodeo, Vickers, Ltd., Trieste, Venezia Giulia, industrial and civil engineering, hydro-electric power projects and computations, sales engineering in machinery and heavy steel products. *TT 5: P 5: RC 5: D 0.8.* 1920 Naval Archt., Todds Shipyards Corporation, Brooklyn, N. Y., hull and engine room layouts. *TT 0.1: P 0.1: D 0.1.* 1921 (1 year) Export Clerk, Scott L. Libby & Co., Inc., City New York. 1922 (6 months) Draftsman and Mech. Engr., R. Hoe & Co., New York City, layout of multiple printing presses, Repair Dept. work, Chaser. *TT 0.5: SP 0.2: P 0.3: D 0.3.* 1922 to 1923 Export Clerk, Market & Hammacher Co., New York City, managing export and shipments of hardware, tools and light machinery to Spain and Portugal and their colonies. 1923 (4 months) technical work, F. W. Dodge Corporation, Sweets Architectural and Engineering Catalogues, New York City, and (3 months) Constr. Supt., John Polachek Bronze & Iron Co., Long Island City, Engr. in charge of alteration and additions to factory. *TT 0.6: P 0.6: RC 0.3.* 1924 to 1926 with Mexican Petroleum Corporation first as Draftsman, and later in more responsible position on work in connection with Panam Gasoline Service Station; designed docks, piers, retaining walls, reinforced concrete, masonry and steel buildings, checked steel tank drawings, laid out railroad sidings, etc. *TT 2: P 2: RC 1.5.* Jan. to March 1926 with Unit Mfg. Co., New York City, designed steel for mill buildings, trusses, columns, also foundation work, made layouts for ice-manufacturing plants including storage (3 000 tons) concrete tanks and power house, etc. At present Arch. Engr., Ulen & Co., Bogota, Colombia. *TT 0.2: P 0.2: D 0.2.* *TT 12.9: SP 2.5: P 10.4: RC 7.5: D 2.5.* Refers to F. E. Barnes, W. T. Chevallier, A. Durant, A. M. McKean, E. S. Needham, J. V. Nimmo, S. F. Tapman.

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(14) **ROBY, JAMES ARIS**, State Highway Comm., Garden City, Kans. (Age 35. Born Monticello, Ga.) 1913 B. S. in Civ. Eng., Ga. School Tech. *TT 2.* July 1913 to Aug. 1914 Student Apprentice, Southern Ry. Co., track work. *TT 1.1: RC 0.3.* Dec. 1914 to May 1915 Chf. of Party with L. W. Robert, C. E., Atlanta, Ga., land surveying and county-line locations. *TT 0.4: RC 0.4.* May 1915 to May 1916 Tapeman, Div. of Valuation, Interstate Commerce Comm., railroad valuation. *TT 1.* May 1916 to April 1921 (except Aug. 1918 to Jan. 1919 with U. S. Army) Rodman and Transitman, Atchison, Topeka & Santa Fe Ry. Co. *TT 4.5.* May 1921 to date with Kansas State Highway Comm. until Dec. 1922 as Asst. Res. Engr. surveying and inspecting construction; then Res. Engr. in charge of construction, roads and bridges, and since Aug. 1925 Div. Engr. in charge of same work, and highway maintenance in Div. No. 6. *TT 4.8: RC 3.3: D 1.1.* *TT 13.8: RC 3.9: D 1.1.* Refers to W. V. Buck, L. E. Conrad, O. J. Eldmann, F. W. Epps, I. E. Taylor.

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(12) **ROSS, GRANT DUNCAN**, 210 West 7th St., Aberdeen, Wash. (Age 26. Born Tacoma, Wash.) 1924 B. S. in Civ. Eng., Univ. of Wash. *TT 2: SP 2.* July 1925 to Jan. 1926 Inspector and Draftsman, Eng. Dept., Aberdeen, Wash. *TT 0.5: SP 0.5.* Jan. 1926 to date City Engr. of Aberdeen. *TT 0.1: P 0.1: RC 0.1.* *TT 2.6: SP 2.5: P 0.1: RC 0.1.* Refers to W. F. Allison, I. L. Collier, J. B. Hamilton, C. E. Magnusson, C. C. May, C. C. More, J. C. Rathbun.

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(6) **ROSS, PAUL GARNER**, 1215 Empire Bldg., Pittsburgh, Pa. (Age 28. Born Waynesburg, Pa.) 1921 B. S. in C. E., Univ. of Pittsburgh. *TT 2: SP 2.* June 1917 to Jan. 1923 (at various times) and March 1923 to date with Farris Eng. Co. as follows: June to Oct. 1917 Recorder on bridge construction; June to Sept. 1918 Rodman and Instrumentman on road location, survey and construction; Aug. 1919 to Jan. 1920 in charge of corps and office work; June to Oct. 1920 on road construction, location, survey, monthly and final estimates; June 1921 to July 1922 Recorder and Draftsman, and July 1922 to Jan. 1923 and March 1923 to Jan. 1924 Supt. on bridge construction; since Jan. 1924 Engr. on surveys, estimates, design and supervising field construction on bridges, mill and factory build-

ings. *TT 5.4: SP 1.1: P 4.3: RC 4.3: D 1.* *TT 7.4: SP 3.1: P 4.3: RC 4.3: D 1.* Refers to J. Farris, H. R. Hortenstine, C. J. Jacobsen, J. S. Lambie, A. W. Nance, J. H. Smith, T. J. Wilkerson.

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(11) **ROSSON, MERWIN**, Box 725, Santa Ana, Cal. (Age 31. Born Creston, Iowa.) Structural Engr., Wilson Eng. School. Jan.-Sept 1917 Rodman and Chainman, Excelsior Gold Mining Co. of Placer County, Cal. *TT 0.7: SP 0.7.* 1917 to 1919 with Signal Corps, A. E. F., in France. July 1919 to Sept. 1920 Rodman, Chainman, Levelman and Transitman, topographic survey, Yosemite National Park, Cal. *TT 1.2: SP 1.2.* Sept. 1920 to June 1921 in private practice, land surveys, drainage, municipal subdivision, irrigation, open ditch pipe and contour. *TT 0.7: P 0.7.* June 1921 to Oct. 1922 Chf. of Party, Draftsman on bridge and county highways construction and maintenance, highway location surveys, Res. Inspector on Sacramento River bridges, municipal subdivisions, city surveys, office computations, Sacramento County Engr.'s Office. *TT 1.3: P 1.3: RC 1.3.* Oct. 1922 to date Constr. Engr. in field on Santa Ana Outfall Sewer System, Field Engr. and Chf. of Eng. Party on city improvement projects, Office Engr., design of culverts, sewer systems paying programs and all computations related thereto, Dept. of Eng., Santa Ana. *TT 3.5: P 3.5: RC 2: D 1.5.* *TT 7.5: SP 2: P 5.5: RC 3.3: D 1.5.* Refers to D. Butler, C. H. Currie, F. S. Currie, A. Givan, J. A. Trudeau.

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(1) **RYAN, CHARLES WILBERT**, 183 Pinehurst Ave., New York City. (Age 33. Born Mt. Forest, Ont., Canada.) 1916 B. Sc. in Civ. Eng., McGill Univ., Montreal, Que., Canada. *TT 2: SP 2.* 1916 to 1921 with Turner Constr. Co., New York City as Rodman, Timekeeper, Material Clerk, Foreman, Engr., Asst. Supt. and Supt. on Worumbo Mfg. Co. plant buildings, Lisbon Falls, Me. *TT 5.5: SP 3: P 2.5: RC 2.* 1921 to 1922 Asst. Gen. Supt., John W. Ferguson Co., Paterson, N. J. *TT 1: P 1.* 1922 to 1924 with James Stewart Co., New York City, as Supt. of Constr. on Brooklyn State Hospital, Creedmoor. *TT 1.5: P 1.5: RC 1.5.* 1924 to 1925 with White Constr. Co., New York City, as Supt. of Constr. on a telephone exchange at 167th St. and one at Ocean Ave. *TT 1.5 P 1.5: RC 1.5.* 1925 with United Fireproofing Co., New York City, as Supt. of Constr. on Woodside Realty Co. Bldg. *TT 0.2: P 0.2: RC 0.2.* 1925 to date with James Baird Co., New York City, as Supt. of Constr. on Aeolian Bldg. *TT 0.5: P 0.5: RC 0.5.* *TT 12.2: SP 5: P 7.2: RC 5.7.* Refers to R. L. Bertin, D. H. Dixon, J. W. Ferguson, J. P. H. Perry, J. E. Torrey.

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(13) **SAHLBERG, MANLEY WILLIAM**, 406 Mitau Bldg., Sacramento, Cal. (Age 34. Born Duluth, Minn.) 1917 B. S., Univ. of Cal. *TT 2: SP 2.* May 1913 to Aug. 1915 Field and Office Engr., Turlock Irrigation Dist., surveying, mapping, canal location, office work, etc. *TT 2.2: SP 2.2.* May to Dec. 1917 and Aug. 1919 to May 1920 with Fred H. Tibbetts, San Francisco, Cal., until Dec. 1917 as Field and Office Engr., mapping, etc., and in charge of engineering in Dist. No. 108, and after Aug. 1919 Res. Engr. in same district and vicinity, principally on construction of Wilkins Slough Pumping Station. *TT 1.3: P 1.3: RC 1.1.* Dec. 1917 to Aug. 1919 Officer, Eng. Corps, U. S. Army. May 1920 to Dec. 1921 Designing Engr., City of Sacramento, Cal., on concrete structures. *TT 1.5: P 1.5.* Dec. 1921 to June 1923 Engr., Grade III, Div. of Architecture, California, preparing working drawings for state buildings. *TT 1.5: P 1.5: D 0.5.* June 1923 to Feb. 1925 with Geo. J. Calder as Office Engr. and Chf. Draftsman, on design and working drawings for various buildings, including Elks Bldg., Sacramento. *TT 1.7: P 1.7: RC 1.7.* Feb. 1925 to date in private practice, Sacramento, structural work for architects on buildings including City Auditorium, California National Bank, addition to D. O. Mills Bldg., Pioneer Memorial Church, garages, school buildings, junior college, etc. *TT 1.1: P 1.1: D 1.* *TT 11.3: SP 4.2: P 7.1: RC 2.8: D 1.5.* Refers to A. Givan, C. H. Kromer, G. A. Posey, C. H. Snyder, F. D. Talbot, A. J. Wagner.

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(11) **SCHNEIDER, EUGENE HENRY**, 501 Corona St., Denver, Colo. (Age 46. Born Mineral Wells, W. Va.) 1902-1903 and 1906-1909 special student in civil engineering, Univ. of West Virginia. *TT 1.3: SP 1.3.* May to Sept. 1905 Chainman and June to Sept. 1907 Draftsman and Instrumentman in charge of drawing room and field party, V. A. Dunbar & Son, Civ. Engrs., Parkersburg, W. Va., municipal and land survey work. *TT 0.6: SP 0.3: P 0.3.* Jan.-March 1906 Draftsman and April-Dec. 1906 Transitman, Baltimore & Ohio R. R. Co. *TT 1: SP 1.* May to Aug. 1909 Concrete Designer for Morris Knowles, Cons. Engr., Pittsburgh, Pa., water-works for Parkersburg, W. Va.; designed reinforced concrete reservoir and receiving well and foundations. *TT 0.3: P 0.3: D 0.3.* Aug. 1909-May 1925 (except Feb.-June 1918 loaned to American International Ship Corporation, at Philadelphia, Pa.) with American Bridge Co., Ambridge Plant, as Detailer and Checker on bridge and structural steel.

TT 15.8: P 15.8: RC 13.8: July 1925 to date with Herbert S. Crocker, Cons. Engr., Denver, Colo., as Designing Engr. on reinforced concrete, bridge and structural steelwork, on structures. **TT 0.8: P 0.8: D 0.8.** **TT 19.8: SP 2.6: P 17.2: RC 13.3: D 1.1:** Refers to C. M. Canady, H. S. Crocker, F. L. Dudley, R. Khuen, Jr., M. Knowles, R. G. Manning, G. F. Sparhawk.

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(1) **SCHWERIN, BENJAMIN**, 2332 Creston Ave., New York City. (Age 33. Born New York City.) 1913 B. S. in Civ. Eng., Cooper Union Inst. Oct. 1911 to Sept. 1912 Jun. Asst. Engr., Public Service Comm., 1st Dist., surveys for new subways, alignment and triangulation computations, etc. **TT 0.9: SP 0.9.** Sept. 1912 to May 1914 Jun. Mech. Draftsman, Dept. of Water Supply, New York City, on estimates and compiling statistical data. **TT 1.7: SP 1.7.** May 1914 to June 1918 Topographical Draftsman, Dept. of Public Works, New York City, designing and detailing structural steel for highway viaducts and masonry walls, stairways, etc. in connection with grade-separation studies and public improvements in Borough of Manhattan. **TT 4.1: P 4.1: D 2.** June to Oct. 1918 Structural Draftsman, Monks & Johnson, in charge of squad designing and detailing foundations for steel foundry for shipyard plant, foundations for crane runway and electric furnace, and on design and detail of reinforced concrete walls, floors and roof slabs for power house in same plant. **TT 0.4: P 0.4: RC 0.2: D 0.2.** Oct. 1918 to Feb. 1919 Structural Draftsman, Surety Eng. Co., structural details and plans for reinforced concrete locomotive coaling-stations, including design of structural members for support of operating machinery, and of reinforcing steel for walls, floors, slabs and columns. **TT 0.3: P 0.3.** April 1919 to Feb. 1921 Structural Engr. and Draftsman, Singer Mfg. Co., designed, detailed and supervised construction of plant improvements, such as special foundations, charging floor, bridge, crane runways, etc., supervised construction of reinforced concrete foundry building of unusual design and assisted in installation of machinery. **TT 1.8: P 1.8: RC 1.3: D 0.5.** Oct. to Dec. 1922 Structural Draftsman, Transit Comm., New York City, designed part of extension of 4th Ave. Subway, Brooklyn, 86th to 97th St. **TT 0.1: P 0.1: D 0.1.** May to July 1925 Structural Steel Draftsman, Grade D, Dept. of Plant and Structures, New York City, High Bridge reconstruction, in charge of detailing structural steel design of superstructure on remodeled span and designing details of trusses carrying aqueduct. **TT 0.1: P 0.1: RC 0.1.** Dec. 1922 to date (except May to July 1925) Topographical Draftsman, Board of Estimate and Apportionment, Office of Chf. Engr., Tunnel Div., studies for bridge and tunnel connections, railroad projects for Narrows Tunnel and Jamaica Bay Improvement, assisting on reports, comparison of designs for trench tunnels, etc. Since Nov. 1924 (spare time, total 4 months) Asst. Engr., New York, Pittsburgh & Chicago R. R., preparation of exhibits and data for Interstate Commerce Comm. for construction of 2-track trunk line railroad (about 330 miles) from Pittsburgh to Easton, Pa., and preparation of exhibits for report on line of Chicago, Rock Island & Pacific R. R. in Louisiana and Oklahoma re consolidation with Kansas City Southern R. R. **TT 3.2: P 3.2: RC 0.3.** **TT 12.5: SP 2.6: P 9.9: RC 1.9: D 2.8.** Refers to D. W. Coe, W. M. Griffin, B. B. Harris, F. W. Perry, W. J. Shea, J. F. Sullivan, A. S. Tuttle.

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(8) **SHANLEY, JOHN FRANCIS**, Olmstead, Ill. (Age 32. Born Chicago, Ill.) 1914 B. S. in C. E., DePaul Univ., Chicago, Ill. **TT 2: SP 2.** Sept. to Nov. 1914 Instrumentman, North Shore Park Dist., Chicago. **TT 0.3: SP 0.3.** April to Dec. 1915 Rodman, Chicago & North Western R. R. **TT 0.7: SP 0.7.** Dec. 1915 to Sept. 1917 Rodman, Water Pipe Extension Div., Chicago, assisting on leakage tests, water surveys, estimating, etc., and (after May 1917) in charge of field engineering (under Div. Engr.) on construction of 48-in. water pipe out of Wilson Ave. pumping station. **TT 1.7: SP 1.4: P 0.3: RC 0.3.** Sept. 1917 to June 1918 Asst. Prof., Coll. of Eng., DePaul Univ., in charge of classes in advanced mathematics, mechanics and surveying. **TT 0.3: P 0.3: RC 0.3.** June 1918 to date Civ. Engr., Standard Oil Co. (Ind.), in charge of field engineering at Whiting (Ind.) Refinery, mapping, property-line surveys, sewer, still, dock construction, track layouts, etc.; June 1921 on contour map, survey and prospect of fullers earth property, and Aug. 1921 on construction of fullers earth plant, trackage, etc., and opening fullers earth quarry at Olmstead, Ill.; in charge of operation of plant since completion; at present Supt. of Clay Min. Dept. **TT 7.7: P 7.7: RC 7.7.** **TT 13.2: SP 4.4: P 8.8: RC 8.8.** Refers to J. Ericson, J. S. Heas, H. E. Hudson, G. C. D. Lenth, W. A. Shaw.

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(6) **SHERMAN, EDWARD PRESSLEY**, 711 Singer Pl., Wilkensburg, Pa. (Age 26. Born Erie, Pa.) 1925 B. S., Pa. State Coll. **TT 2: SP 2.** Sept. 1919 to Oct. 1921 detail and research work, Carnegie Steel Co., Braddock, Pa. **TT 2: SP 2.** June to Sept. 1922 Asst. to Chf. Engr. in office and field, Superior Steel Co., Carnegie, Pa. June to Sept. 1924 Chainman and Rodman, Pennsylvania State Highway Dept., Waynesburg, Pa. June 1925 to date

detail and design, structural steel buildings, Carnegie Steel Co., Braddock, Pa. TT 0.7: SP 0.7: TT 4.7: SP 4.7: Refers to H. N. Benkert, R. O'Donnell, W. P. Rothrock, R. L. Sackett, E. D. Walker.

(12) SHIPMAN, DON BENITO, 450 Welder St., Portland, Ore. (Age 32. Born Sunbury, Pa.) 1917 B. S. in C. E., Bucknell Univ. TT 2: SP 2. Aug. 1919 to Aug. 1920 Structural Steel Detailer and Structural Engr., McClintic-Marshall Co., Pottstown, Pa., structural steel detailing, design detail. TT 1.1: P 1.1. Aug. to Oct. 1920 Structural Engr., Bethlehem (Pa.) Constr. Co., structural steel detailing and design. TT 0.2: P 0.2. Oct. 1920 to date Structural Engr., Truscon Steel Co., Youngstown, Ohio, design and estimate of structural steel and reinforced concrete, also sales and promotional work. TT 5.3: P 5.3: RC 2: D 3. TT 8.6: SP 2: P 6.6: RC 2: D 3. Refers to A. F. Berni, O. W. Irwin, N. H. Jebejian, C. Klaessius, N. H. Sturdy.

(4) SHOEMAKER, EDWYN LEIBFREED, 5513 Marshall St., Philadelphia, Pa. (Age 29. Born Philadelphia, Pa.) Registered Prof. Engr., State of Pennsylvania. 1917 B. S. in C. E., Univ. of Pa. TT 2: SP 2. May 1917 to June 1918 Timekeeper, Paymaster, Field Engr. and Supt., Wm. Steele & Sons Co., Philadelphia, Pa. TT 1: SP 1. June to Nov. 1918 with U. S. Army, Office of Constructing Quartermaster, Camp Colt, Pa., then at Engr. Officers' Training School, Camp Humphries, Va. TT 0.5: SP 0.5. Dec. 1918 to Oct. 1919 U. S. Civil Service, assisted Cost Engr. on construction of Philadelphia Q. M. Terminal. TT 0.8: SP 0.8. Oct. 1919 to date Draftsman, Field Engr. and Structural Designer, Wm. Steele & Sons Co., Philadelphia, on concrete warehouse, manufacturing and office buildings, garage, steel supports for escalators, railroad sidings, etc. TT 6.4: SP 1.4: P 5: RC 5: D 4. TT 10.7: SP 5.7: P 5: RC 5: D 4. Refers to H. C. Berry, E. T. Grandlenard, C. F. Gross, M. Y. Neely, C. Russell, C. L. Warwick, M. A. Webster.

(7) SIMPSON, FRANCIS EUGENE, 1287 Alter Rd., Detroit, Mich. (Age 35. Born Buffalo, N. Y.) June to Aug. 1907 and July 1908 to March 1910 Field and Office Asst. with Joos & Gatchel, Geo. Ricker and Lupfer & Remick, Buffalo, N. Y., municipal works and surveys covering sewerage, water supply, roads and pavements, harbor improvements. TT 2: SP 2. April 1910 to March 1911 Eng. Asst. and Inspector, New York State Highway Dept., surveys, office and construction work. TT 1: SP 1. April 1911 to March 1915 Jun. Engr., New York State Engr.'s Dept., Western and Middle Divs., Barge Canal construction, field and office, hydraulic works and structures. TT 4: SP 2: P 2: D 2. April 1915 to July 1916 Jun. Engr., New York State Public Service Comm., 1st Dist., subway construction, New York City, Supervisor of underpinning and Field Engr. TT 1.3: P 1.3: RC 1. Aug. 1916 to July 1917 and Jan. 1921 to Aug. 1922 Asst. Engr., International Ry. Co., Buffalo, first year supervised power-house and track construction and represented Company in court cases, etc.; after Jan. 1921 on design and construction of trackage and sub-structures; building maintenance; Eng. Representative in court cases; appraisal and franchise work. TT 2.6: P 2.6: RC 1: D 1.1. Aug. 1917 to March 1918 Engr., New York Central R. R. Co., Buffalo, and vicinity; represented Company in land transfers, etc.; designed trackage and off-line structures and works. TT 0.7: P 0.7: RC 0.3: D 0.4. April 1918 to Dec. 1920 Civ. Engr., Pierce-Arrow Motor Car Co., Buffalo; design and construction of war plant; design of industrial structures and plant equipment. TT 2.8: P 2.8: RC 1.2: D 2.3. Sept. 1922 to Sept. 1924 Structural Engr., National Aniline & Chemical Co., Buffalo, supervision of structural design, construction and underpinning. TT 2.1: P 2.1: RC 1.9: D 2.1. Oct. 1924 to Feb. 1925 Structural Engr., American Radiator Co., Buffalo, and (Feb. 1925) Acheson Graphite Co., Niagara Falls, N. Y., building design. TT 0.4: P 0.4: D 0.4. March 1925 to date Designing Engr. of Structures, Board of Water Supply, Detroit, Mich., design of power and pumping structures for new water-works. TT 1: P 1: RC 1: D 1. TT 17.9: SP 5: P 12.9: RC 6.4: D 9.3. Refers to G. C. Andrews, G. H. Fenkell, L. G. Lenhardt, J. T. Mockler, H. E. Rixinger, F. H. Stephenson.

(13) SKYTTE, JOHANNES, 2239 Parker St., Berkeley, Cal. (Age 32. Born Copenhagen, Denmark.) 1916 B. S. in C. E., Royal Tech. Univ., Copenhagen, Denmark. TT 2: SP 2. April to Sept. 1916 Asst. to Constr. Supt., H. Hoffmann Sons & G. Loss, engineering work on harbor construction. TT 0.4: P 0.4. Oct. 1916 to Feb. 1918 Structural Engr., Skaanska Cementgjuteriet, Stockholm, Sweden, on design of buildings and bridges, structural steel and reinforced concrete. TT 1.3: P 1.3: D 1.3. Feb. 1918 to Sept. 1919 and Dec. 1922 to Feb. 1923 Engr., hydraulic and structural, Vattenbyggnadsbyraan, Stockholm, on design of hydro-electric power plants. TT 1.8: P 1.8: D 1.8. Nov. 1919 to June 1922 Designer and Constr. Supt. with Swanson & Sehested, Singapore, in charge of design and

construction for reinforced concrete structures. *TT 2.6: P 2.6: RC 2.6.* Feb. 1923 to Jan. 1925 Cons. Engr., Copenhagen, land reclamation and structural design. *TT 1.9: P 1.9: RC 1.9.* Feb. 1925 to Jan. 1926 Structural Engr. until Sept. 1925 with Villadsen Bros. then with Williams & Wood, San Francisco, acting as Designer, Detailer and Estimator for reinforced concrete buildings, industrial plants, etc. *TT 0.9: P 0.9: D 0.9.* Feb. 1926 to date Engr., The Foundation Co., San Francisco, acting as Estimator and Designer. *TT 0.1: P 0.1: D 0.1.* *TT 11: SP 2: P 9: RC 4.5: D 4.1.* Refers to A. L. Allen, S. T. Dahl, T. B. Host, M. J. Hvorslev, L. R. Jorgensen, E. B. Morden, O. Speir, Jr., B. R. Wood.

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(13) **SOVULEWSKI, LAWRENCE GABRIEL**, 3130a College Ave., Berkeley, Cal. (Age 26. Born Galt, Cal.) 1925 B. S. in C. E., Univ. of Cal. *TT 2: SP 2.* Jan. to July 1917 Rodman and Chainman, U. S. Govt., on road location and grade settings. *TT 0.5: SP 0.5.* July to Dec. 1917 drafting, computing for estimates, timekeeping, Gutleben Bros. *TT 0.5: SP 0.5.* Dec. 1917 to March 1919 with Aviation Corps, U. S. Army, finally Master Rigger in charge of aeroplane assembling, 1 year overseas. *TT 1.3: SP 1.3.* April to Sept. 1919 Foreman in charge of construction of special trail involving $1\frac{1}{2}$ miles of stone stairway and 800 ft. of cableway, Yosemite National Park; Gutleben Bros., Contrs. *TT 0.5: SP 0.5.* Sept. 1919 to Jan. 1920 Foreman in charge of road maintenance, Yosemite National Park. *TT 0.2: SP 0.2.* Jan. 1921 to Jan. 1922 with Yosemite National Park Co., until July 1921 Truck Driver and Asst. Dispatcher, then Instrumentman, topographic survey and sewer-system layout, and after Dec. 1921 testing electric meters. *TT 0.5: SP 0.5.* May to Nov. 1923 Res. Engr., Gen. Grant National Park, design and construction of water supply and sewerage system and disposal method, U. S. Public Health Service. *TT 0.7: P 0.7: RC 0.7: D 0.1.* Dec. 1923 to April 1924 with Gutleben Bros., as Field Engr. in charge of surveys, estimates and studies of earthfill dam, and Asst. Supt. of Constr. on 6-story reinforced concrete building during completion; charge office records, material purchasing, orders, inspection of sub-contract work. *TT 0.4: P 0.4: RC 0.4.* May to Sept. 1924 Res. Engr., Sequoia National Park, design and construction of sewer system and garbage incinerator, also in charge of road and plant maintenance and road construction; U. S. Public Health Service. *TT 0.4: P 0.4: RC 0.4: D 0.2.* May 1925 to date Draftsman, Designer, East Bay Water Co., on design of water-filtration plant. *TT 0.7: SP 0.1: P 0.6: D 0.6.* *TT 7.7: SP 5.6: P 2.1: RC 2.3: D 0.8.* Refers to R. E. Davis, B. A. Etcheverry, G. W. Hawley, C. G. Hyde, L. D. Mars, I. W. Mendelsohn.

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(8) **SPORRY, ERNEST**, 5440 Harper Ave., Chicago, Ill. (Age 28. Born Fischental, Switzerland.) 1922 Diplom-Ingenieur, Eidgenossische Technische Hochschule (Univ. of Zurich). *TT 2: SP 2.* Oct. 1919 to Oct. 1921 with Heinrich Weber, Cons. Engr., Zurich, Switzerland, detail layouts and designs of industrial buildings, involving reinforced concrete and structural steel. *TT 2: P 2: D 2.* June 1922-May 1923 with C. Baresel, Engr. and Contr., Stuttgart, Germany, designed and supervised construction of intakes, spillways, canals, culverts, bridges, syphons, hydro-electric power stations, dams, reinforced concrete pipe lines, penstocks, surge tanks and substations. *TT 1: P 1: RC 0.5: D 0.5.* July-Dec. 1923 with Blerd, Lydon & Grandpre, Chicago, Ill., detail layouts and designs of industrial buildings, involving reinforced concrete, structural steel, piping and heating layouts. *TT 0.5: P 0.5: D 0.5.* Jan. 1924 to date with E. J. Albrecht, Chicago, on surveys, field examinations and studies of proposed hydro-electric developments; Contr.'s Engr. on Elkhart River hydro-electric developments, involving two hydro-electric stations, 3 miles of canal works, intakes, bridges, etc. *TT 2.1: P 2.1: RC 2.1.* *TT 7.6: SP 2: P 5.6: RC 2.6: D 3.* Refers to E. J. Albrecht, F. A. Dale, L. F. Harza, H. P. McKean, O. E. Strehlow.

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(2) **THOMPSON, JOHN WALTER**, Care, U. G. I. Contr. Co., New Milford, Conn. (Age 23. Born Chrome, Pa.) 1925 B. S. in C. E., Pa. State Coll. *TT 2: SP 2.* July to Sept. 1922 Draftsman, Oxford (Pa.) Elec. Co., design of hoist for lifting poles. June to July 1923 Draftsman and Surveyor, Oxford Fire Co., survey and map of property. July to Sept. 1923 Asst. Engr., Lukens Steel Co., Coatesville, Pa., layout, and supervision of erection of trestle work, building and track foundations. April to May 1924 Asst. Engr. with W. C. Davis, Landscape Engr., Cleveland, Ohio, setting stakes for sub-grading and contouring map for a school. *TT 0.1: SP 0.1.* May to July 1924 Draftsman, Cuyahoga County, Court House, Cleveland, revaluation maps. *TT 0.2: SP 0.2.* Sept. 1924 to Feb. 1925 Draftsman, Dept. of City Transit, Philadelphia, Pa., plans for subway construction. *TT 0.4: SP 0.4.* July to Sept. 1925 Draftsman, Dept. of Highways, Bedford, Pa. *TT 0.2: SP 0.2.* Sept. 1925 to date Draftsman, U. G. I. Contr. Co., Philadelphia, Pa., on plans for power plant construction, some design and estimating; bridge design and field plans for power development. *TT 0.4: SP 0.2: P 0.2: D 0.1.* *TT 3.3: SP 2.1: P 0.2: D 0.1.* Refers to W. M. Hall, J. J. L. Houston, R. O'Donnell, F. G. Schworm, C. H. Stevens, E. D. Walker.

- (6) **TONNELIER, JOHN EDMUND**, 5865 Alderson St., Pittsburgh, Pa. (Age 43. Born Reading, Pa.) Licensed Prof. Engr. and Land Surveyor, New York State, 1911. C. E., Rens. Pol. Inst. TT 2: SP 2. July 1901 to July 1904 and Dec. 1906 to Sept. 1907 Draftsman, Rodman and Estimator, McClintic-Marshall Co., Pottstown and Rankin, Pa. TT 3.8: SP 3.8, July 1904 to Dec. 1906 Draftsman, Phoenix Bridge Co., on Old Quebec and Manhattan Bridges. TT 2.4: SP 2.4. June 1908 to Sept. 1909, Draftsman, Pittsburgh & Lake Erie R. R. Bridge, Beaver, Pa. TT 1.2: P 1.2. Sept. 1911 to April 1913 Bridge Designer, New York State Barge Canal, designing lift bridges and adjacent improvements. TT 1.6: P 1.6: D 1.6. April 1913 to Sept. 1917 Chf. Draftsman (1 year) and Chf. Engr., National Bridge Works, Long Island City, N. Y. TT 4.4: P 4.4 RC 4.4. Sept. 1917 to Feb. 1920 with U. S. Shipping Board, Emergency Fleet Corporation, as Prin. Asst. Res. Engr. at Newark Bay Shipyard and Sec. Head, Shipyard Plants Div. TT 2.7: P 2.7: RC 2.7. Feb. 1920 to Sept. 1921 Asst. Structural Engr., J. G. White Eng. Corporation, New York City, in charge of planning and engineering supervision of plant of Atmospheric Nitrogen Corporation, Syracuse, N. Y. TT 1.6: P 1.6: RC 1.6. Sept. 1921 to Jan. 1922 consulting work. TT 0.4: P 0.4. Jan. 1922 to Jan. 1924 with National Bridge Works, on development of steel lumber market in New York. TT 2: P 2: RC 2. Jan. 1924 to date with Jones & Laughlin Steel Corporation, Pittsburgh, Pa., on planning, design and marketing of new structural shape. TT 2: P 2: RC 2. TT 2.1: SP 9.4: P 1.7: RC 12.7: D 1.7. Refers to R. E. Bakenhus, A. S. Crane, W. R. Davis, D. S. Gendell, Jr., J. Jones, S. R. Jones, T. R. Lawson, H. H. Rousseau, W. W. Rousseau, G. L. Taylor, R. N. Whitcomb.
- (13) **TREVOR, HARRY RAMON**, 500, Buchanan St., San Francisco, Cal. (Age 40. Born Birmingham, England.) Oct. 1906 to Feb. 1907 Chairman and Sept. to Dec. 1910 Instrumentman, Chicago, Milwaukee & Puget Sound Ry. TT 0.8: SP 0.4: P 0.4. March to June 1907 Instrumentman, Alaska Central Ry. TT 0.3: P 0.3. Dec. 1910 to Oct. 1912 Res. Engr. Argo Yard Terminals, and Oct. 1912 to Jan. 1913 Draftsman, bridges and buildings, Oregon-Washington R. R. & Navigation Co. TT 2.1: P 2.1: RC 1.8: D 0.3. Jan. 1913 to Oct. 1915 Chf. of Party, Interstate Commerce Comm., San Francisco. TT 2.8: P 2.8: RC 2.8. June to Dec. 1918 Draftsman, San Francisco Shipbuilding Co. TT 0.5: P 0.5: D 0.5. Jan. 1919 to 1920 Draftsman, Pacific Fruit Express Co., San Francisco. Jan. to July 1920 Asst. Engr., Pacific Mfg. Co., Richmond, Cal. TT 1.5: P 1.5: RC 0.5: D 1.5. July to Dec. 1920 and April to Sept. 1921 Draftsman, Fred. H. Tibbetts, San Francisco. TT 1: P 1: D 1. Dec. 1920 to March 1921 Surveyor, Miller & Lux, San Francisco. TT 0.3: P 0.3: RC 0.3: D 0.3. Sept. 1921 to Dec. 1923 Land Surveyor and Constr. Engr., California Peach & Fig Growers, Fresno. TT 2.2: P 2.2: RC 2.2: D 2.2. Dec. 1923 to June 1924 Valuation Engr. with Arthur Semsen, San Francisco. TT 0.5: P 0.5. June 1924 to Oct. 1925 Asst. Engr., Associated Oil Co., San Francisco. TT 1.3: P 1.3. Oct. 1925 to date Chf. of Party, Sanborn, Corinson & Cliff. TT 0.4: P 0.4: RC 0.4. TT 13.7: SP 0.4: P 13.8: RC 8: D 5.8. Refers to S. Murray, E. J. Pearson, A. A. Semsen, D. S. Stoner, R. A. Thompson, R. G. Wadsworth, C. Williams, Jr.
- (9) **WALLACE, GALEN ANSON**, 61 Van Duman Ave., Delaware, Ohio. (Age 29. Born Delaware, Ohio.) 1919 A. B., Ohio Wesleyan Univ. 1925 B. S., Mass. Inst. Tech. TT 2: SP 2. March to June 1918 surveying, Instrumentman, Pennsylvania R. R. TT 0.3: SP 0.3. June to Oct. 1924 surveying, drafting, estimating and in charge of construction, J. E. Anderson, Res. Engr., Ohio Wesleyan Univ. June to Oct. 1925 Engr., Dixie Constr. Co., Dadeville, Ala., on inspection and supervision of placing of reinforcing. TT 0.2: P 0.2. Oct. 1925 to date Inspector, Eng. Dept., U. S. Govt., on construction of locks and dams on Ohio River. TT 0.4: P 0.4. TT 2.9: SP 2.3: P 0.6. Refers to H. K. Barrows, H. L. Bowman, C. B. Breed, J. W. Howard, C. M. Spofford, L. G. Warren.
- (2) **WATERS, LOUIS HENRY**, 87 West Cedar, Boston, Mass. (Age 40. Born Minneapolis, Minn.) Sept. 1921 to March 1923 student in engineering and architecture, Univ. of New Mexico. March to Aug. 1923 student in design and estimating, Western School of Estimating and Plan Reading, Denver, Colo. Sept. 1923 to June 1925 student, architectural design and engineering, Massachusetts Inst. of Technology. TT 1.2: SP 1.2. Nov. 1906 to Nov. 1907 Chairman and Levelman, Engr. Corps, Bent County, Colo. TT 1: SP 0.7: P 0.3. Nov. 1907 to May 1908 Rodman, Chairman and Asst. Instrumentman, and June 1908 to May 1910 ranching and construction, 25 miles irrigation canal, all for French Land & Irrigation Co. TT 2.6: SP 1.7: P 0.9: RC 0.7. May 1910 to June 1913 Yard Foreman and Engr. Corps, Kansas City Stock Yard Co. TT 3: SP 3. Feb. to June 1914 Fire Guard and Asst. Forest Ranger, U. S. Forest Service, Fraser, Colo. TT 0.3: SP 0.3. June 1914 to April

1915 Steel Erector and Gang Boss, and Feb. to July 1916 Steel Erector, Missouri Valley Bridge & Iron Co., Las Vegas, N. Mex. TT 1.2: SP 0.8: P 0.4. April 1915 to Feb. 1916 Instrumentman, Plotter, with Geo. E. Morrison, C. E., Las Vegas. TT 0.8: P 0.8. July 1916 to Oct. 1917 Forest Ranger, Engr. on road work and Clerk, April 1919 to Jan. 1920 recreational survey, topography, U. S. Forest Service, Albuquerque, N. Mex., and Arizona. TT 1.9: SP 1.2: P 0.7: RC 0.7. Oct. 1917 to March 1919 Sgt. and Master Engr., U. S. Army, topographical and observation service, flash and sound. TT 1.4: P 1.4: RC 1.4. Jan. to July 1920 Asst. Project Engr. and Inspector, New Mexico State Highway Dept., Mora to Las Vegas (37 miles). TT 0.5: P 0.5: RC 0.5. July 1920 to April 1921 Foreman, El Paso Bitulithic Co., paving streets, Las Vegas. TT 0.8: P 0.8: RC 0.8. April to July 1921 Carpenter and Carpenter's Foreman, C. S. Lamb Constr. Co., Las Vegas. July to Sept. 1922 Inspector and Asst. Bldg. Supt., Trost & Trost, Archts., Albuquerque. TT 0.2: P 0.2. July 1925 to date Bldg. Supt., Draftsman and Designer, Morton C. Tuttle Co., Boston, Mass. TT 0.6: P 0.6: RC 0.4: D 0.2. TT 15.6: SP 8.9: P 6.7: RC 4.6: D 0.2. Refers to H. A. Gray, E. Harsch, P. W. Norton, G. M. Williamson, M. L. Woodruff.

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(6) WHITE, CLARK LEO, 193 Clay St., Rochester, Pa. (Age 23. Born Shreve, Ohio.) 1925 B. S. in C. E., Univ. of Pittsburgh. TT 2: SP 2. June 1920 to March 1921 Clerk, Eng. Dept., Pittsburgh Terminal Div., Pennsylvania R. R.; also acted as Rodman. TT 0.7: SP 0.7. June to Sept. 1922 Open Hearth Recorder, Jones & Laughlin Steel Corporation, recording charging and tapping of open-hearth furnaces. June to Sept. 1923 Engr., Woodlawn Land Co., Rodman, Chainman and Instrumentman, municipal and subdivision work. Feb. to June 1924 Engr., Stevenson, Williams & Johnston Real Estate Co., Chainman and Instrumentman, map drawing, profiles and cross-section plotting, municipal and subdivision work. TT 0.3: SP 0.3. June 1925 to date Engr., Koppers Constr. Co., Chainman, Instrumentman, Steel Chaser and Draftsman. TT 0.7: SP 0.7. TT 3.7: SP 3.7. Refers to J. S. Lambie, J. P. Leaf, L. C. McCandless, L. M. McIntyre, J. H. Smith.

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(14) WRIGHT, PURD B., Jr., 3626 Walnut St., Kansas City, Mo. (Age 25. Born St. Joseph, Mo.) 1922 B. S. in Civ. Eng., Washington Univ., St. Louis, Mo. TT 2: SP 2. June to Sept. 1918 Draftsman and office work, Burns & McDonnell Eng. Co. TT 0.3: SP 0.3. July to Sept. 1919 Chainman and Rodman in field party, Clark E. Jacoby Eng. Co. July to Sept. 1920 Superv. Engr., Hecker Constr. Co. June to Sept. 1921 Asst. Valuation Engr., Kansas City Southern Ry., survey of right-of-way. June 1922 to June 1923 with Harrington, Howard & Ash, as Res. Engr., at Yankton, S. Dak. (3 months), office drafting (3 months) and design (6 months). TT 1: P 1: RC 0.5: D 0.5. June 1923 to April 1924 with Long Constr. Co., supervision of construction, some estimating and purchasing. TT 0.8: P 0.8: RC 0.8. April 1924 to date with Burns & McDonnell Eng. Co., design and job solicitation work. TT 1.9: P 1.9: RC 1.9: D 1.2. TT 6.1: SP 2.3: P 3.8: RC 3.2: D 1.7. Refers to L. R. Ash, E. W. Bacharach, E. E. Howard, C. E. Jacoby, R. E. McDonnell, C. K. Mathews, J. L. Van Ornum.

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(1) ZABAT, MANUEL VALMONTE, 542 West 124th St., New York City. (Age 30. Born Gapan, Nueva Ecija, Philippine Islands.) B. S. C. E., Univ. of the Philippines. 1921 C. E., Cornell Univ. TT 2: SP 2. Oct. 1921 to May 1923 Jun. Asst. Engr., Grade 1, and May 1923 to date Jun. Asst. Engr., Grade 2, New York State Bureau of Highways, engaged as follows: Oct. 1921 to Jan. 1922 inspecting concrete road construction and acting as Chainman and Rodman; Jan. to June 1922 making plans, plotting cross-sections and checking estimates; June 1922 to Jan. 1923 computing and giving grades for construction, inspecting road work, Instrumentman on surveys; Jan. to May 1923 on plans and estimates; May 1923 to Jan. 1924 Engr. in charge of construction of 2½-mile concrete road, Instrumentman and Recorder on surveys, Chf. of Party on construction and surveys; Jan. to June 1924 making estimates, designing and drafting culverts and retaining walls; June 1924 to Jan. 1925 Engr. in charge of construction (1½ miles), giving grades and line, and Chf. of final survey party; Jan. to April 1925 making final estimates of cost of construction; April to July 1925 Engr. in Chg. and Chf. of Party for construction of concrete road; since July 1925 inspecting, and checking estimates and cost of construction, Recorder and Instrumentman on surveys. TT 4.5: SP 1.6: P 2.9: RC 2.5: D 0.4. TT 6.5: SP 3.6: P 2.9: RC 2.5: D 0.4. Refers F. A. Barnes, L. S. Hulburd, C. F. Morse, O. Smith, J. H. Sturdevant, I. Walzer.

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(13) ZEARELY, CLYDE EDWIN, 530 Bush St., San Francisco, Cal. (Age 32. Born Scottsdale, Pa.) 2 years student, Univ. of Detroit. TT 0.7: SP 0.7. May 1911 to June 1917 with H. C. Frick Coke Co., Scottsdale, Pa., steel and concrete detailing on mine structures, such as tipples, bins, plant layout, coal- and coke-handling equipment, water-

purification systems, steam power-plants, pumping-stations, etc. TT 6.2: SP 3: P 3.2. June 1917 to March 1919 with U. S. Army. March 1919 to May 1920 with Carnegie Steel Co., Youngstown, Ohio, plant layout, reinforced concrete foundations for blast furnaces, details of steel-frame structures, etc. TT 1.2: P 1.2. May 1920 to Jan. 1922 with Thomas Steel Reinforcement Co., Detroit, Mich., estimating, design and contracting of reinforcing and structural steel for all classes of buildings, also field superintendence. TT 1.7: P 1.7: RC 1.7: D 1.7. Jan. 1922 to May 1923 with Oakland Motor Co., Pontiac, Mich., in charge of layout, design and field superintendence of extensions to mill and factory buildings, also design of conveyors and handling equipment. TT 1.4: P 1.4: RC 1.4: D 1.4. May 1923 to Jan. 1924 with A. C. Martin, Archt., Los Angeles, Cal., on design of steel and concrete frames for office buildings and warehouses. TT 0.7: P 0.7: RC 0.7: D 0.7. Jan. 1924 to May 1925 with Dwight P. Robinson & Co., Inc., New York City, on design and layout of 110-kv. steam electric power house at Seal Beach, Cal., including foundations, tunnels, stack, steel frame, boiler settings, etc., also charge of design of steel tower-line and substation. TT 1.4: P 1.4: RC 1.4: D 1.4. May 1925 to date with Great Western Power Co. of California, on design of steel-frame and concrete substations and extensions, and structures in connection with power production. TT 0.7: P 0.7: RC 0.7: D 0.7. TT 14: SP 3.7: P 10.3: RC 5.9: D 5.9. Refers to W. H. Alderson, W. E. Belcher, C. M. Mardel, H. G. Sharp, B. S. Thayer.

FOR TRANSFER

FROM THE GRADE OF ASSOCIATE MEMBER

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(12) BENDER, HOMER CHARLES, Assoc. M., South 1106 F St., Spokane, Wash. (Elected June 1, 1920.) (Age 40. Born Reno, Nev.) 1909 B. S., Mass. Inst. Tech. TT 2: SP 2. June 1909 to July 1912 Draftsman, Designer, Instrumentman, Chf. of Party and Engr. in charge of field work on hydro-electric developments, Stone & Webster, Inc. TT 3: SP 1.5: P 1.5: RC 1.5. July 1912 to March 1913 in partnership with D. W. Hays on irrigation and hydro-electric design and construction. TT 0.7: P 0.7: RC 0.5: D 0.2. March 1913 to Nov. 1914 Div. Engr. on 500 000-acre irrigation project in Canada, in charge of construction and most of design of structures. TT 1.7: P 1.7: RC 1.7. Nov. 1914 to Aug. 1915 in private practice, hydraulic investigations pertaining to irrigation of large ranches. TT 0.7: P 0.7: RC 0.7. Aug. 1915 to Jan. 1918 Mgr. of Ranches, Riverside Mill Co., had full charge of development of wheat raising ranch (3 000 acres), designing and constructing irrigation works, warehouses, etc. TT 2.4: P 2.4: RC 2.4. Jan. to June 1918 contract work. TT 0.4: P 0.4: RC 0.4. June to Dec. 1918 with Pacific Coast Shipbuilding Co., structural design, etc. TT 0.6: P 0.6: D 0.6. Dec. 1918 to June 1920 Supt. of Public Utilities, City of Spokane, on utility rates and preparing engineering reports on miscellaneous problems. TT 1.5: P 1.5: RC 1.5. June 1920 to July 1922 Designing Engr., and July 1922 to date Chf. Draftsman, Washington Water Power Co., in charge (under Chf. Engr.) of design for this hydro-electric co-operation, at present on design of 100 000-h.p. development. TT 5.7: P 5.7: RC 3.7: D 2. TT 18.7: SP 3.5: P 15.2: RC 12.4: D 2.8. Refers to A. D. Butler, C. E. Davis, B. J. Garnett, E. G. Taber, A. J. Turner.

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(14) BROWN, JESSE FRED, Assoc. M., 701 Mutual Bldg., Kansas City, Mo. (Elected April 14, 1919.) (Age 38. Born Westmoreland, Kans.) 1911 B. S. in Eng., and 1923 C. E., Univ. of Kans. TT 2: SP 2. June to Sept. 1908 Instrumentman, Kansas Southern & Gulf Ry. March to Aug. 1910 Transitman and Chf. of Party, Kansas, Oklahoma & Gulf Ry Co., preliminary and location surveys. June to Aug. 1911 Draftsman, Worley & Black, Cons. Engrs., Kansas City, Mo. TT 0.2: SP 0.2. Aug. 1911 to March 1914 Asst. Supt. of Bldgs. and Grounds, Univ. of Kansas, in charge of maintenance of buildings and utilities and design and construction of extensions and additions to utilities. TT 2.6: SP 1.5: P 1.1: RC 0.6: D 0.5. March 1914 to March 1919 with Quartermaster Corps, U. S. Army, until May 1918 as Civ. Engr. and Supt. of Constr., then Capt., engaged as follows: March 1914 to Dec. 1916 at Ft. Slocum, N. Y., in charge of maintenance of buildings and utilities and design and construction of extensions and additions to utilities; 1917 at Ft. Bliss, Tex., in charge of construction of water-supply system and design and construction of sanitary sewer system; after Dec. 1917 at Washington, D. C., as Asst. to Officer in charge of design and construction of sewers, sewage and garbage-disposal works and roads for army posts and cantonments. TT 4.9: P 4.9: RC 4.9: D 2.7. March 1919 to date Office Engr. for Black & Veatch, Cons. Engrs., Kansas City, Mo., in charge of design, plans and specifications for sanitary and storm sewers, sewage-disposal works, water-distribution

systems, water-purification plants, street and highway paving and power plants. TT 7: P 7: RC 7: D 7. TT 16.7: SP 3.7: P 13: RC 12.5: D 10.2. Refers to E. B. Black, A. C. Everham, J. V. Hanna, E. M. Stayton, H. P. Treadway, N. T. Veatch, Jr., R. W. Waddell.

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(1) CARPENTER, CLARENCE EDSON, Assoc. M., 2 Birch Rd., Yonkers, N. Y. (Elected July 10, 1907.) (Age 50. Born Canaan, N. Y.) 1898 M. E. Cornell Univ. TT 2: SP 2. July 1899 to Jan. 1906 with Manhattan Ry. Co., New York City, until Jan. 1904 as Draftsman, made surveys for elevated railway extensions and power-house construction, computed stresses in elevated railway structure and made designs for reinforcement; then Asst. Engr. on estimates of cost and designs for elevated railway structure reinforcement and designed steam-heating systems and additions to elevated railway structure; after Oct. 1905 Road Engr. in direct charge of maintenance of steel structures and foundations. TT 6.3: SP 2: P 4.3: RC 4.3: D 3.7. Jan. 1906 to date with Interborough Rapid Transit Co., New York City, until Sept. 1912 as Road Engr. in charge of maintenance of steel structures of elevated and subway lines; since then Engr. M. of W.; has charge of maintenance of structure, buildings, track and contact rail of all lines, under general supervision of Chf. Engr. TT 20.1: P 20.1: RC 20.1. TT 28.4: SP 4: P 24.4: RC 24.4: D 3.7. Refers to F. W. Gardiner, R. H. Jacobs, J. H. Myers, G. H. Pegram, R. Ridgway, R. A. Shaller, T. K. Thomson.

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(1) CUNNINGHAM, FRED GASTON, Assoc. M., Care, Fuller & McClintock, 170 Broadway, New York City. (Elected March 7, 1921.) (Age 40. Born Bellaire, Ohio.) 1909 to 1910 special student, Civ. Eng. course, Univ. of Pennsylvania. TT 0.3: SP 0.3. 1903 to 1907 Rodman, Instrumentman and Draftsman on railroad and municipal engineering. TT 4.4: SP 4.4. 1907 to 1909 Asst. Engr., City of Toledo, Ohio, on filter plant, tunnel and other water-works design and construction. TT 2.1: P 2.1: RC 2.1: D 1.5. 1910 to 1911 Chf. Draftsman, Fort Worth & Denver City Ry., Ft. Worth, Tex., in charge of all maintenance-of-way drawings and design and drawings for new construction, including buildings and bridges. TT 1: P 1: RC 1: D 0.5. 1911 to 1914 Res. Engr. and later Chf. Draftsman, W. J. Sherman Co., Engrs., Toledo, in charge of design and construction of over twenty water, sewer and paving improvements. TT 3.2: P 3.2: RC 3.2: D 2.5. 1914 to 1921 with Wm. G. Clark, Toledo, as Prin. Asst. and later Associate Cons. Engr., in general charge of design, including water-purification works, pumping station and supply mains for the City (cost several million dollars) and water-purification plant and pumping-station equipment at Lima and Fremont, Ohio, and Alpena, Mich. TT 6: P 6: RC 6: D 5. 1921 to date with Fuller & McClintock, Engrs., in personal charge of design and construction of \$3 000 000 water supply, pumping- and treatment works, Memphis, Tenn.; extensive water and sewer improvements in Florida, York, Pa., Fairmont, W. Va.; investigation of future water supply of Toledo, and design of substantial parts of \$11 000 000 water-supply works for Kansas City, Mo.; at present Mgr. of work including design and supervision of \$15 000 000 sewerage and sewage-treatment facilities at West Palm Beach, Fla., and elsewhere and design, supervision and consulting work on water facilities at Wilmington, Del., Staunton, Va., York, Pa., Buffalo, N. Y., and Springfield, Ohio. TT 4.2: P 4.2: RC 4.2: D 4.2. TT 21.2: SP 4.7: P 16.5: RC 16.5: D 13.7. Refers to G. Champe, J. N. Chester, W. H. Dittoe, G. W. Fuller, G. A. Gessner, Jr., J. K. Giesey, L. T. Owen, H. M. Pirnie, W. J. Sherman.

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(9) DUGAN, FRANK CLARKE, Assoc. M., State Board of Health, Louisville, Ky. (Elected March 11, 1919.) (Age 38. Born Louisville, Ky.) 1910 B. C. E., and 1913 C. E., Univ. of Ky. TT 2: SP 2. April 1910 to Dec. 1912 Asst. Engr., Comms. of Sewerage, Louisville, Ky., construction and drafting. TT 2.7: P 2.7. Dec. 1912 to March 1917 Asst. Engr., Div. of Sewerage, Cincinnati, Ohio; preliminary studies and design, checked contract drawings. TT 4.2: P 4.2: D 3.5. March to May 1917 Res. Engr. with Wm. G. Clark, Cons. Engr., Toledo, Ohio, in charge construction of filtration plant at Lima, Ohio. TT 0.2: P 0.2: RC 0.2. May 1917 to June 1919 2d Lieut. and 1st Lieut., Engr. R. Co., Capt., Engrs., U. S. Army, commanded Co. of Engrs. during parts of Aisne-Marne and Oise-Aisne Campaigns, Intelligence and Training Sec., Office of Chf. of Engrs.; since 1921 Capt., Engrs. Reserve. TT 2: P 2: RC 0.8. June to Aug. 1919 Asst. Engr., Div. of Sewerage, Akron, Ohio, preliminary studies and design. TT 0.2: P 0.2: D 0.2. Aug. 1919 to Feb. 1921 Designing Engr., Div. of Sewerage, Flint, Mich., preliminary studies and design of comprehensive system of sewerage; also in charge of drafting room. TT 1.6: P 1.6: RC 1: D 0.6. Feb. 1921 to date Director, Bureau of San. Eng., State Board of Health, Louisville, Ky.; Lecturer, School of Public Health, Univ. of Louisville. TT 5: P 5: RC 5. TT 17.9: SP 2: P 15.9: RC 7: D 4.3. Refers to W. J. Carrel, W. M. Caye, P. Hansen, H. S. Morse, J. E. Root, H. W. Streeter.

(1) FOUHY, MICHAEL AUGUSTIN, Assoc. M., 96 West 163d St., New York City. (Elected Sept. 9, 1919.) (Age 40. Born New York City.) Student, Sci. course, Cooper Union (1900 to 1904), and Extension course, Columbia Univ. (1906). Oct. 1901 to May 1905 with Lewinson & Just as Blue-print Boy, Tracer, Rodman, Levelman, Structural Detailer and Designer of simple steel construction for buildings. TT 3.6: SP 3.6: D 0.6. May 1905 to Dec. 1906 with Hinkle Iron Co., New York City, as Structural Draftsman and Checker on shop drawings, plans, etc., for steel construction of buildings, during latter months had charge of draftsmen on shop drawings. TT 1.6: P 1.6: D 0.6. Dec. 1906 to July 1910 with Westinghouse, Church, Kerr & Co. as Draftsman, Checker and Designer on steel and reinforced concrete construction; also Traveling Inspector for steel and cast-iron material, industrial and railroad structures, power houses, crane structures, etc.; part of time attended Structural Eng. course, Teachers Coll., Columbia Univ. TT 3.6: P 3.6: RC 1: D 1.9. July 1910 to Oct. 1912 with Post & McCord as Checker and Designer on office building construction, Bankers Trust Bldg., Brooklyn Y. W. C. A., Western Union Bldg., New York, Yale & Towne Bldg., etc.; part of time loaned to Gunvald Aus and designed and checked on Woolworth Bldg., wind-bracing portals, columns, girder, etc. TT 2.2: P 2.2: RC 1: D 1.2. Oct. 1912 to Jan. 1914 with Westinghouse, Church, Kerr & Co., as Squad Engr. on steel and reinforced concrete construction; also acted as Expeditor for delivery of materials. TT 1.2: P 1.2: RC 1: D 1.2. Jan. to July 1914 Draftsman and Designer on steel construction, small structures, such as schools, theatres, apartment houses, crane runways, etc., Eastern Bridge & Structural Co., Worcester, Mass. TT 0.5: P 0.5: D 0.2. Sept. 1914 to Feb. 1915 Checker on elevated railroad extensions, Milliken Bros., New York, checked details for new express stations, 9th Ave. Elev., at 14th and 34th Streets. TT 0.5: P 0.5: D 0.2. July to Nov. 1915 Checker and Designer office building construction with Frank J. McCabe, Structural Engr., New York. TT 0.5: P 0.5: RC 0.5: D 0.5. Nov. 1915 to July 1918 Designer and Squad Engr., Westinghouse, Church, Kerr & Co., New York, design and plans of power-house; rolling mill and furnace buildings, for brass companies, locomotive shops and storage building, B. R. & P. R. R. Co., furnace and coking buildings, National Carbide Corporation, a chemical and a manufacturing building, Gen. Chemical Co., and about six types of structures of U. S. Govt. Nitrates Plant No. 2; also prepared designs and estimates for various other structures. TT 2.7: P 2.7: RC 2: D 2.7. July 1918 to Sept. 1919 Steel Expert, Emergency Fleet Corporation, San Francisco, until April 1919 estimating steel hull material for all shipyards in California, apportioning tonnages and examining steel requirements; then at home office in Philadelphia on same work for all shipyards in United States. TT 1.2: P 1.2: RC 1.2: D 1.2. Sept. 1919 to May 1920 Steel Expert, U. S. Shipping Board, in charge of segregation and disposal of war surplus materials. TT 0.7: P 0.7: RC 0.7. May 1920 to April 1922 Cons. Engr., New York City, principally as Agt. for clients purchasing war surplus engineering materials, equipment and property from U. S. Govt. TT 2: P 2: RC 2. April to Oct. 1922 Structural Designer on new industrial type structures for plants of American Car & Foundry Co. TT 0.6: P 0.6: D 0.6. Oct. 1922 to Oct. 1923 Structural Engr., American Rolling Mill Co., supervised design and handled business operations for construction of new sheet plant (25 structures, steel, wood and reinforced concrete). TT 1: P 1: RC 1. Oct. 1923 to April 1924 Structural Engr. with Buchman & Kahn, Archts., designed and supervised contractors' details for two 16-story loft buildings in New York. TT 0.5: P 0.5: RC 0.5. May to Dec. 1924 Structural Engr., D. P. Robinson & Co., supervised structural features of alteration and addition to large power plant. TT 0.5: P 0.5: RC 0.5. Jan. 1925 to date Structural Engr. with Welskopf & Plekworth, Cons. Engrs., designing and supervising designers on several large office and bank buildings. TT 1.2: P 1.2: RC 0.6: D 0.6. TT 2.1: SP 3.6: P 20.5: RC 10.2: D 11.5. Refers to J. Bourguignon, T. N. Gilmore, S. F. Holtzman, R. A. Marshall, S. C. Welskopf, A. Weymouth.

(5) HART, RICHARD WILLING BYRD, Assoc. M., Box 51, Lynchburg, Va. (Elected Jan. 15, 1923.) (Age 38. Born North Garden, Va.) 1914 C. E., Univ. of Va. TT 2: SP 2. Jan. 1914 to Jan. 1918 with Southern Ry. Co. as follows: until May 1917 as Rodman, Transitman, Masonry Inspector, Draftsman and Chf. of Party; then Asst. Engr. in charge of 27 miles of double-track construction in South Carolina. TT 3.5: SP 2.9: P 0.6: RC 0.4: D 0.2. Jan. 1918 to Feb. 1919 1st Lieut., and Feb. to Oct. 1919 Capt., Engrs., U. S. Army, part of time in France. TT 1.3: P 1.3: RC 1.8. Oct. 1919 to June 1921 in private practice, surveying, etc., and Orchardist in Virginia. TT 0.6: P 0.6: RC 0.6. June 1921 to Jan. 1922 Project Engr., Virginia State Highway Comm., road construction. TT 0.5: P 0.5: RC 0.2: D 0.3. Jan. 1922 to Oct. 1925 with Dept. of Public Works, Lynchburg, Va., until Sept. 1922 as Asst. Engr., then Acting Director, and after March 1923 Director, in charge of design, construction, maintenance, etc. (annual expenditure about \$250 000). TT 3.3:

P 3.8: RC 1.9: D 1.9. Oct. 1925 to date Acting City Mgr., Lynchburg. TT 0.4: P 0.4: RC 0.2: D 0.2. TT 12.6: SP 4.9: P 7.7: RC 5.1: D 2.6. Refers to B. A. Bennett, W. W. C. Perkins, A. J. Saville, G. H. Shaw, T. T. Towles, W. P. Wiltsee.

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(10) MYERS, RICHARD AUSTIN, Assoc. M., 3 West 10th St., Charlotte, N. C. (Elected Nov. 25, 1919.) (Age 41. Born Charlotte, N. C.) 1905 B.S. in C.E., Va. Pol. Inst. TT 2: SP 2. 1905 to 1909 Asst. to Res. Engr., Southern Power Co., Charlotte, N. C., on three large hydro-electric developments. TT 3.9: P 3.9: RC 2. 1909 to 1914 with U. S. Engr. Dept. in charge of greater part of hydrographic survey of Intra-Coastal Passage, South Carolina Dist.; Jun. Engr. on river and harbor improvement and Res. Engr. on dredging 4 miles of ship channel in Winyah Bay. TT 4.8: P 4.8: RC 4.2. 1914 to 1918 with C. A. Mees, Cons. Engr., as Res. Engr. on hydro-electric developments. TT 3.5: P 3.5: RC 3.5. 1918 to date with South-Eastern Underwriters Association making surveys, reports, gradings and compiling recommendations for improvement in grade of municipal fire defenses. TT 7.3: P 7.3: RC 7.3. TT 21.5: SP 2: P 19.5: RC 17. Refers to J. P. Allen, B. S. Drane, W. S. Lee, W. A. Leland, C. A. Mees, E. M. Royall.

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(7) NAGLER, FLOYD AUGUST, Assoc. M., 6 Melrose Circle, Iowa City, Iowa. (Elected Junior March 14, 1916; Assoc. M. May 13, 1918.) (Age 34. Born Howard City, Mich.) Registered Prof. Engr., New York State. 1914 B. S., Mich. State Coll. 1915 M. S. E., and 1917 Ph. D., Univ. of Mich. TT 2: SP 2. July 1909 to Sept. 1910 Electric Meterman, Commonwealth Power Co., Jackson, Mich. TT 1.2: SP 1.2. Oct. 1914 to June 1917 at Univ. of Michigan as graduate student in hydraulic engineering, also (Sept. 1915 to June 1916) Teaching Asst. in Civ. Eng., and (Aug. to Oct. 1916) Engr. on design and construction of experimental hydraulic flume at Argo Dam, Ann Arbor, Mich. TT 2.3: P 2.3: RC 0.1: D 0.1. June to Oct. 1914, June to Sept. 1915 and June to Aug. 1916 with Fargo Eng. Co., Jackson, Mich., in charge of evaporation observations on Houghton Lake, Mich. (1914), Asst. Engr. on turbine-efficiency tests and water-power reports (1915) and Asst. to Res. Engr. on construction of Junction Dam on Manistee River, Mich. (1916). TT 0.7: P 0.7: RC 0.3. June 1917 to April 1918 Asst. Engr. and Jan. 1919 to Sept. 1920 Office Engr. with Robert E. Horton, Cons. Hydr. Engr., Albany, N. Y., on reports, expert testimony on water-power, water-supply, stream diversion and damage cases. TT 2.4: P 2.4: RC 2.1: D 0.2. April 1918 to Jan. 1919 2d Lieut., Meteorological Sec., Science and Research Div., Signal Corps, U. S. Army. TT 0.8: P 0.8: RC 0.6. Sept. 1920 to July 1922 Asst. Prof. and July 1922 to date Associate Prof. of mechanics and hydraulics, State Univ. of Iowa, in charge of hydraulics and materials laboratories and research and special courses in hydraulic engineering; also consulting engineering on water powers and hydraulic problems. TT 5.4: P 5.4: RC 5.4. TT 14.8: SP 3.2: P 11.6: RC 6.5: D 0.3. Refers to W. G. Fargo, R. E. Horton, H. W. King, G. H. Knutson, B. J. Lambert, W. G. Raymond, E. L. Waterman, G. S. Williams, S. M. Woodward, D. L. Yarnell.

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(11) NOETZLI, FRED ADOLPH, Assoc. M., 928 Central Bldg., Los Angeles, Cal. (Elected Nov. 25, 1919.) (Age 38. Born Hoengg, Switzerland.) 1911 C. E., and 1913 D. S., Swiss Federal Pol. Inst., Zurich. TT 2: SP 2. July to Nov. 1911 Topographer, survey of Swiss National Park. TT 0.4: P 0.4. Nov. 1911 to Jan. 1914 Instructor in Civ. Eng., and May to Sept. 1915 Prof. in Chg., Swiss Federal Polytechnic Inst. TT 2.6: P 2.6: RC 0.4. March to Aug. 1914 and Jan. to April 1915 Designing Engr., reinforced concrete bridges, "Ferrobeton", Rome, Italy. TT 0.8: P 0.8: RC 0.4: D 0.4. Feb. to June 1916 Instructor, Civ. Eng. Dept., Lehigh Univ., South Bethlehem, Pa. TT 0.4: P 0.4. July 1916 to Feb. 1917 Res. Engr., reinforced concrete construction, C. C. Hopkins, Cons. Engr., Rochester, N. Y. TT 0.7: P 0.7: RC 0.7. March to Sept. 1917 Designing Engr. and Supt. of Constr., reinforced concrete structures, A. E. Sedgwick, Cons. Engr., Los Angeles, Cal. TT 0.6: P 0.6: RC 0.6: D 0.6. Dec. 1917 to May 1918 Engr., Bridge and Bldg. Dept., Pacific Elec. Ry. Co., Los Angeles. TT 0.5: P 0.5: D 0.5. June to Sept. 1918 with Moore Shipbuilding Co., Oakland, Cal. TT 0.3: P 0.3. Oct. 1918 to June 1922 Chf. Engr., Beckman & Linden Eng. Corporation, San Francisco, Cal., irrigation and hydro-electric power developments in California and Arizona; in responsible charge of surveys, diamond drill borings and designs of Verde River Irrigation and Power Project, Ariz. (100 000 acres, \$23 000 000) involving an arch dam 300 ft. high and a multiple arch dam 210 ft. high; report on 100 000-h.p. power development on Colorado River near Parker, Ariz. TT 3.7: P 3.7: RC 3.7. July 1922 to June 1923 Chf. Engr., Bissell & Snnicks, Cons. Engrs., San Francisco, reports on irrigation projects in California, plans and specifications for Malibou Lake Dam, investigation and preliminary plans for power plant and electric railways for City of Harbin, China, and surveys and preliminary plans of San Francisco Memorial Bridge. TT 1: P 1: RC 1:

D 0.5. Sept. to Nov. 1923 on structural designs of Al Malakah Temple, Los Angeles, John C. Austin, Archt. **TT 0.3: P 0.3: D 0.3.** Dec. 1923 to date Cons. Hydr. Engr., especially on dams; design and plans for Shea Arch dam and Green Valley multiple arch dam, California, and for multiple arch retaining wall (80 ft. high), Los Angeles; Cons. Engr. of Salt Lake City for raising Mountain Dell multiple arch dam from 105 ft. to 150 ft.; design of several proposed arch and multiple arch dams; report to Tirso Hydro-Elec. Power Co., Italy, on multiple arch dam construction in America; since 1922 Secy., Comm. on Arch Dam Investigation of Eng. Foundation; design of test dam on Stevenson Creek, Cal.; since June 1925 Cons. Engr., U. S. Dept. of Interior, Indian Irrigation Service, for proposed Coolidge Dam on Gila River, Ariz. **TT 2.2: P 2.2: RC 2.2: D 1.** **TT 15.5: SP 2: P 13.5: RC 9: D 5.3.** Refers to O. H. Ammann, A. D. Flinn, L. C. Hill, H. W. Hincks, F. P. McKibben, C. R. Olberg, A. L. Sonderegger.

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(3) **VOGEL, ANDREW**, Assoc. M., 611 Lenox Road, Schenectady, N. Y. (Elected May 31, 1916.) (Age 39. Born Schenectady, N. Y.) 1913 B. S., Mass. Inst. Tech. **TT 2: SP 2.** June 1901 to Sept. 1903 Rodman and Jun. Draftsman, July 1905 to Sept. 1908 drafting, design and specifications for building work, and June 1909 to Sept. 1911 Field Engr. in charge of construction of large factory buildings, all for Gen. Elec. Co., Schenectady, N. Y. **TT 5.8: SP 1.5: P 4.3: RC 2.2: D 1.** Summer 1912 with Lockwood, Greene & Co., Engrs., Boston, Mass., on drafting and specifications for building construction. June 1913 to March 1914 with Monks & Johnson, Engrs., Boston, in charge of drafting squad on building work. **TT 0.7: P 0.7.** March 1914 to Feb. 1917 with R. D. Bradbury, Boston, as Prin. Asst. Engr. on design and construction of buildings, special investigations and general consulting practice on structural work. **TT 2.9: P 2.9: RC 1.5: D 1.4.** Feb. 1917 to date with Gen. Elec. Co., in responsible charge of design and construction of plants, 1 year as Engr. at Bloomfield, N. J., and Philadelphia, Pa., 2 years Asst. Supt. of Grounds and Bldgs., Schenectady Works, and 6 years Engr. in charge of engineering for various plants, warehouses, office buildings, etc. **TT 9: P 9: RC 9.** **TT 20.4: SP 3.5: P 16.9: RC 12.7: D 2.4.** Refers to D. A. Allee, J. C. Bell, R. D. Bradbury, G. S. Hook, H. W. Horne, F. P. McKibben, E. L. Robinson, H. E. Sawtell, W. C. Taylor, M. M. Thrane.

FROM THE GRADE OF JUNIOR

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(1) **CAYOT, PAUL PETER**, Jun., 512 Fifth Ave., New York City. (Elected Aug. 4, 1924.) (Age 31. Born New York City.) Registered Archt., New York State. 1918 to 1920 (evenings) student, School of Eng., Columbia Univ. (Ext.) 1914 to 1916 Inspector on concrete, steel and frame structures, and March 1921 to Dec. 1923 Architectural and Structural Draftsman on hotels, apartments, factories, etc., outside supervision, Maynicke & Franke, Archts. **TT 4.7: SP 1.2: P 3.5: RC 1.8.** May 1916 to April 1919 Reinforced Concrete and Architectural Checker, until Nov. 1917 with Turner Constr. Co., then with White Constr. Co. **TT 3: SP 1: P 2: D 0.5.** April 1919 to Oct. 1920, Checker, Turner Constr. Co. **TT 1.5: P 1.5.** Dec. 1920 to March 1921 Reinforced Concrete and Architectural Draftsman, Thompson & Binger, Archts. and Engrs., office building, Hide & Leather Bldg. **TT 0.4: SP 0.4.** Jan. to April 1924 Structural and Architectural Draftsman, Walter Kidde & Co., Archts. and Engrs., factory and mill buildings. **TT 0.2: SP 0.2.** April 1924 to date Archt. and Engr., W. I. Rouse and L. A. Goldstone, Archts. in charge of 25-story office building (Murray Hill Bldg.) planning, checking and supervision, also apartments, hotels, clubs and alterations. **TT 1.8: P 1.8: RC 1.3: D 0.5.** **TT 11.6: SP 2.8: P 3.8: RC 3.1: D 1.** Refers to R. L. Bertin, R. C. R. Gautier, I. Harby, A. B. Helser, W. J. Helser, L. L. Mellus, O. S. Schlich, A. W. Stephens.

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(4) **DOWNEY, JAMES FRANCIS, Jr.**, Jun., University Club, Bethlehem, Pa. (Elected Feb. 25, 1924.) (Age 28. Born Boston, Mass.) 1922 B. S., Mass. Inst. Tech. **TT 2: SP 2:** Dec. 1917 to Dec. 1918 2d Lieut., Pilot, U. S. Army Air Service; Payne Field, West Point, Miss; graduate, U. S. School of Military Aeronautics, Princeton, N. J., and School of Airplane Gunnery, Wilbur Wright Field, Dayton, Ohio. **TT 1: P 1: RC 0.3.** May to June 1922 Jun. Highway Engr., Div. of Highways, Illinois, Inspector of road construction. **TT 0.2: P 0.2.** July 1922 to Dec. 1924 Jun. Engr., U. S. Coast and Geodetic Survey, engaged as follows: July-Sept. 1922 in charge of field party in tidal and current survey of New York Harbor; Oct. 1922-March 1923 offshore hydrographic survey, Norfolk, Va., to San Diego, Cal.; March 1923 commissioned Aid, relative rank of Ensign in Navy; April-Sept. 1923 triangulation, topography, magnetics and hydrography in Alaska; in charge of topographic survey party, Kachemak Bay, Alaska; Oct. 1923-Feb. 1924 astronomic, precise triangulation

and magnetic computations, Washington, D. C.; Feb. 1924 commissioned Jun. Hydrographic and Geodetic Engr., relative rank of Lieut. (J.G.) in Navy; March-Oct. 1924 in charge of field party on precise triangulation and base measurement on international boundary, Alaska-Canada; after Nov. 1924 Chf. of Party on survey of large tract purchased by District of Columbia from State of Maryland. TT 2.5: P 2.5: RC 0.8. Feb. 1925 to date Engr., Special Engr.'s Office, Bethlehem Steel Corporation, in responsible charge in editing and making independent engineering investigations relative to publication of handbooks, etc. TT 1: P 1: RC 1. TT 6.7: SP 2: P 4.7: RC 2.1. Refers to W. Bowie, L. O. Colbert, F. H. Hardy, C. V. Hodgson, E. Mirabelli, C. M. Spofford, G. E. Thackray.

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(1) **ENGLISH, CHARLES CARMEN, Jun.**, La Romana, Republica Dominicana, (Elected Nov. 26, 1923.) (Age 26. Born Pueblo, Colo.) 1919 to 1921 (3 years) student in M. E., Sibley Coll., Cornell Univ. TT 1: SP 1. Dec. 1915 to June 1917, Draftsman, Southern Colorado Power Co., Pueblo, Colo., shop drawings for rewinding motors and generators, switch panels and mechanical parts, machinery details, etc. TT 1.5: SP 1.5. June 1917 to Oct. 1920 Draftsman, Frazier-Sheal Co., Cleveland, Ohio, detailing steel on ore-bridges, concrete structures on water-works, filtration plants and reservoirs; designed mechanical details on blast furnace stack and plant. TT 2: SP 1.5: P 0.5: D 1.5. Oct. 1920 to Feb. 1921 Designer, Curless Pipe Mfg. Co., Ithaca, N. Y., made complete gear designs, bevel, spur and helical on concrete pipe-manufacturing machine. Feb. to April 1921 Designer, Low Moor (Va.) Iron Co., complete charge of designing pig iron-breaking machine and foundations, at Cornell Univ. May 1921 to Dec. 1922 Office Engr., City of Pueblo, Colo., in charge of all office engineering in connection with street improvements, paving projects, sewers, estimates, reports on construction and preliminary studies on river control and inspection of concrete construction. TT 1.8: P 1.8: RC 1.8: D 0.8. Dec. 1922 to Jan. 1924 Asst. Res. Engr., Beaver Park Co., Penrose, Colo., cross-sections, profiles, canal locations, dam construction layout, designed flume structures, reinforced concrete gatehouse, forebays and gravity-section concrete dam, layout of spillway; supervision of construction. TT 1: P 1: RC 0.2: D 0.5. Jan. 1924 to Feb. 1925 Asst. Chf. Engr., Cheyenne Mt. Co., Colorado Springs, Colo., location, plans, designs, estimates, layout and supervision of construction on 6 miles mountain highway (\$300 000). TT 1: P 1: RC 0.5: D 0.2. April 1925 to date Constr. Engr., Central Romana, Inc., New York, complete charge of preparing plans and construction of 40 km. of macadam highway, responsible for letting contracts, laying out work, estimates, reports and designs for bridges, including a 60-ft. span deck-girder concrete bridge and a 40-ft. span through girder (total cost to be \$175 000). TT 0.9: P 0.9: RC 0.9: D 0.2. TT 9.2: SP 4: P 5.2: RC 3.4: D 3.2. Refers to L. E. Bishop, C. H. Bryson, J. W. Frazier, J. E. A. Linders, P. O. Macqueen, R. E. Sheal.

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(1) **HARTLEY, GEORGE RUSSELL, Jun.**, 232 Centre St., Nutley, N. J. (Elected May 28, 1923.) (Age 31. Born Walden, N. Y.) 1916 B. Sc. in C. E., Rutgers Coll. TT 2: SP 2. June to Sept. 1916 Rodman, Pennsylvania Lines West of Pittsburgh, drafting and field work. TT 0.3: SP 0.3. Oct. to Dec. 1916 Rodman with City Engr., New Brunswick, N. J., field work on city boundary line survey, grades and map drafting. TT 0.3: SP 0.3. Jan. to Sept. 1917 Aid, U. S. Coast and Geodetic Survey, field work on tertiary triangulation, hydrography and planetable surveying. TT 0.8: SP 0.8. Oct. 1917 to March 1919 1st Lieut., Coast Artillery Corps, U. S. Army, Instructor in surveying, graduate Orientur School, Battery Executive heavy artillery in France. TT 1.4: SP 0.7: P 0.7: RC 0.7. March to Sept. 1919 Jun. Hydrographic and Geodetic Engr., U. S. Coast and Geodetic Survey, off-shore hydrography and navigation. TT 0.6: SP 0.6. Sept. 1919 to Sept. 1920 Asst. Town Engr., Nutley, N. J., on line and grade and inspection of rock sewer and concrete trunk sewer, survey for improvements, estimates and distribution of job costs by assessment. TT 1: SP 0.2: P 0.8: RC 0.8. Sept. 1920 to Oct. 1922 Draftsman and Field Engr., Salmond, Scrimshaw & Co., on design of reinforced concrete buildings and building details, Timekeeper and Res. Engr. on school building erection. TT 2.1: SP 0.3: P 1.8: RC 0.7. Oct. 1922 to Sept. 1923 Structural Designer, Dwight P. Robinson & Co., on reinforced concrete for industrial and power-plant buildings. TT 1: P 1: D 1. Sept. 1923 to July 1924 Res. Engr. with Francisco & Jacobus, Field Supt. in charge of erection of factory building for architect and engineer on separate contract basis. TT 0.8: P 0.8: RC 0.8. July 1924 to date Constr. Engr., Town of Nutley, in charge of surveys, drawing of plans, inspection and construction of sanitary sewer system and pavement construction; completed \$200 000 concrete pavement, and plans for \$100 000 sewer contract. TT 1.6: P 1.6: RC 1.6: TT 11.9: SP 5.2: P 6.7: RC 4.6: D 1. Refers to E. Dieblitsch, H. A. Foster, R. F. Jacobus, J. Salmond, Jr., J. F. Scrimshaw, W. A. Stickel, G. R. B. Symonds.

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(8) **HENDERSHOT, FRED**, Jun., 201 Hunter Ave., Joliet, Ill. (Elected Oct. 10, 1921.) (Age 30. Born Macon, Mich.) 1919 B. S. C. E., Univ. of Mich. TT 2: SP 2. June to July 1919 Instrumentman, Saginaw Div., Michigan State Highway Office, drafting, laying out roads. TT 0.1: SP 0.1. Sept. 1919 to June 1920 Physical Director and Instructor in Descriptive Geometry, Plane Surveying, Baldwin Wallace Coll., Berea, Ohio. TT 0.8: P 0.8. Sept. 1920 to June 1922 Draftsman, and June 1922 to date Asst. Engr., Div. of Waterways, Illinois, tracing, drafting, designing plans for locks and appurtenances, surveys, and Prin. Asst. on construction of Lockport Lock (\$1 500 000 contract). TT 5.4: P 5.4: RC 1.4: D 2. TT 8.3: SP 2.1: P 6.2: RC 1.4: D 2. Refers to M. G. Barnes, M. Blanchard, L. D. Cornish, H. W. King, W. M. Smith, J. L. Southworth.

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(1) **ROSS, KENNETH WARD**, Jun., 309 Broadway, New York City. (Elected Oct. 10, 1921. (Age 31. Born St. Stephen, N. B., Canada.) 1916 B. S. Dartmouth Coll. 1917 C. E. Thayer School of Civ. Eng. TT 2: SP 2. May to Sept. 1916 Transitman, Maine Central R. R. TT 0.3: SP 0.3. May to Nov. 1917 Checker, steel fabrication, Nevada Consolidated Copper Co., building construction. TT 0.5: P 0.5: RC 0.5. Nov. 1917 to July 1919 with U. S. Army, Map-Making Div. of Intelligence Sec., and French Canavas de Tir, artillery control surveys. TT 1.7: P 1.7: RC 0.2. Sept. 1919 to Feb. 1920 Draftsman, construction and plant maintenance, Ingersoll-Rand Co. TT 0.4: SP 0.4. Feb. 1920 to date Engr. with George F. Hardy, Cons. Engr., New York City, on reports and plans for hydro-electric power, studies and plans for pulp and paper mill. TT 6: SP 1: P 5: RC 2: D 3. TT 10.9: SP 3.7: P 7.2: RC 2.7: D 3. Refers to H. Bennett, R. Fletcher, G. F. Hardy, C. A. Holden, T. T. Whittier.

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(1) **STERN, JENO**, Jun., 1391 Stebbins Ave., New York City. (Elected Aug. 28, 1922.) (Age 25. Born New York City.) 1921 C. E., Cornell Univ. TT 2: SP 2. June to Oct. 1920 and Aug. 1921 to June 1922 Surveyor, U. S. Engr. Corps, field and office work on river and harbor improvement of New York City. TT 0.9: SP 0.9. June 1922 to June 1923 Draftsman, Elmira Plant, American Bridge Co., Elmira Heights, N. Y., Detailer and Draftsman on structural steel. TT 1: SP 1. June 1923 to date Designer, Welskopf & Pickworth, Cons. Engrs., and in responsible charge of work, including structural steel erection in field, including American Radiator Eldg., Bank of America, Harriman National Bank, Equitable Trust Bldg. and Mitsui Bank. TT 2.6: P 2.6: RC 1.5: D 2.6. TT 6.5: SP 3.9: P 2.6: RC 1.5: D 2.6. Refers to F. A. Barnes, M. A. Fouhy, J. W. Pickworth, H. W. Preston, S. C. Welskopf, W. H. Welskopf.

The Board of Direction will consider the applications in this list not less than thirty days after the date of its issue.

MINIMUM REQUIREMENTS FOR ADMISSION

Grade	General Requirements	Age	Length of Active Practice	Number of Years of Experience
Member	Qualified by a board of engineers to practice in the State of New York	25 years	5 years	5 years
Associate Member	Qualified by a board of engineers to practice in the State of New York	25 years	5 years	5 years
Associate	Qualified by a board of engineers to practice in the State of New York	25 years	5 years	5 years
Associate	Qualified by a board of engineers to practice in the State of New York	25 years	5 years	5 years
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Associate	Qualified by a board of engineers to practice in the State of New York	25 years	5 years	5 years

* Graduated from a school of engineering recognized by the State of New York or equivalent.
 † Membership ceases at age of 65 unless transferred to higher grade.